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ABSTRACT

This monograph discusses findings from a 3-year project that investigated strategies that could be used to promote the social integration and relationships between young adults with and without disabilities in supported employment settings. Four studies were conducted. The first study was a descriptive study that described the nature, development, and quality of close social relationships between supported employees and their co-workers. The second study looked at the efficacy of two types of interventions (contextual and co-worker) and the influence of the employment training specialist on those interventions. Through a national survey, the third study was designed to determine the variables (i.e., agency, supported employee, service provider, workplace intervention) that predicated successful integration outcomes. The last study was a substudy of the third study and was designed specifically to look at supported employees who had been involved in co-worker interventions and were judged to be either successfully or unsuccessfully integrated into work settings. The monograph contains working papers of these studies. In addition, two other concept papers are included which provide further information about social integration and employment settings. Finally, a section is included that reflects some possible applications from the studies. (CR)

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Promoting Social Relationships and Integration for Supported Employees in Work Settings

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University of Illinois at Urbana-Champaign

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Introduction

This monograph represents the culmination of three years of work on a project funded by the National Institute on Disability and Rehabilitation Research. The purpose of this project was to conduct a series of studies that would provide information about strategies that could be used to promote the social integration and relationships between young adults with and without disabilities in supported employment settings. Four studies were conducted. The first study was a descriptive study that described the nature, development, and quality of close social relationships between supported employees and their co-workers. The second study looked at the efficacy of two types of interventions (Contextual and Co-worker) and the influence of the employment training specialist on those interventions. Through a national survey, the third study was designed to determine the variables (i.e., Agency, Supported Employee, Service Provider, Workplace Intervention) that predicted successful integration outcomes. The last study was a substudy of the third study and was designed specifically to look at supported employees who had been involved in Co-worker Interventions and were judged to be either successfully or unsuccessfully integrated into work settings.

This monograph contains the working papers of these studies. In addition, two other conceptual papers are included which provide further information about social integration in employment settings. Finally, we have included a section that reflects some possible applications from these studies; this section was designed to show how the research results could be used in practice.

This monograph reflects the work of many people who deserve special praise and thanks. First, none of these studies would have been possible without the participation of the many supported employees and their families who agreed to be participants. Thanks is also extended to the agencies, schools, and employment training specialists who supported these employees. In addition, gratitude is extended to the many employers and co-workers who were also willing to participate in the research.

This research was also facilitated by a number of individuals who deserve special mention. First, my project officer, Delores Watkins, provided much needed guidance and flexibility in facilitating this research. My colleague, Frank Rusch, lent his leadership, creativity, and scholarship. Laird Heal and Ben Wallace provided direction and expertise in research design and data analysis. And Betty Taylor and Cindy Reiter were instrumental in facilitating the clerical management of the studies.

Finally, a great deal of gratitude is extended to the superb graduate students who worked on this research. These students, listed in alphabetical order, were always enthusiastic, professional, scholarly, and fun. They represent some of the best who will go on to lead our field in the pursuit of making sure that people with disabilities are included in their schools, communities, and work settings. Thanks is extended to: Rob Cimera, Jennie Horn, Nancy Kronick, Dan Linneman, Pam Luft, Yoshi Ohtake, Billie Jo Rylance, and Deb Shelden.

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Development of Social Relationships in Supported Employment Settings

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Running head: DEVELOPMENT OF SOCIAL RELATIONSHIPS

Abstract

This review of the literature analyzed the research addressing factors that might contribute to the development of friendships between supported employees and their co-workers without mental retardation in competitive work settings. Specifically, this review detailed the extent to which research in the field of special education has identified critical social skills for supported employees to form friendships. In addition, this review discussed the extent to which existing research in the field of the social psychology has analyzed critical social skills for youth to form friendships. The results of this review indicated that existing research in the special education had neglected addressing the development of social relationships between supported employees and their co-workers. Although some researchers in this field gave clues to the identification the social skills that might contribute to the development of relationships, these researchers did not analyze the nature of social interactions in relation to the different types of relationships between supported employees and their co-workers. Based on these findings, this paper proposed some issues that warrant future research.

Development of Social Relationships in Supported Employment Settings

Supported employment services have become a powerful impetus in assuring a significant number of employees with mental retardation opportunities for jobs into competitive and integrated workplaces (Revell, Wehman, Kregel, West, & Rayfield, 1994). Supported employment has also created opportunities for employees with disabilities to interact socially and develop friendships with their nondisabled co-workers. However, the process that leads to friendships between employees with and without mental retardation has not been sufficiently scrutinized.

Stainback and Stainback (1987) defined friendship as "an ongoing reciprocal liking and behavioral involvement between two or more people" (p. 19) and argued that mutual trust, acceptance, support, and sharing personal thoughts and feelings may be important components of friendship. This nature of friendship may challenge employees with disabilities because without good social skills they may have difficulty with friendship formation and maintenance. However, considering the fact that friendship is one of the most valued components of quality of life (Hughes, Hwang, Kim, Eisenman, & Killian, 1995), the formation and maintenance of friendships seems to be an important goal to pursue.

The nature of friendship may also have a great impact on long-term social support. Even after employees with mental retardation have been employed, a variety of factors threaten the continuity of the employees' status (Lagomarcino & Rusch, 1989). In addition, work places are so dynamic that service providers have difficulty in predicting everything that might influence the employment status (Hughes, Rusch, & Curl, 1990). Furthermore, considering that job coaches typically withdraw to fade out their direct support, the resources best able to provide adequate and timely supports are co-workers or supervisors who are typically present in close proximity to the employees (Nisbet & Hagner, 1988). Presumably, co-workers or supervisors who are friends with the supported employees are more likely to provide instrumental support (Fenlason & Beehr, 1994) such as physical assistance or advice as well as emotional support (Fenlason et al., 1994) that is characterized by the actions of caring or listening sympathetically.

In work settings, employees may have the following three types of positive or neutral social relationships: work acquaintance, work friend, and social friend (Henderson & Argyle, 1985). A work acquaintance is a co-worker whom a participant "meets at work simply through formal contacts and the interactions are relatively superficial and task-oriented, and not characterized by either liking or disliking" (Henderson et al., 1985: p. 231). A work friend is a co-worker with whom a supported employee has a more intimate relationship, "interacting together over work or socially at work" (p. 230). Although they get together during lunch/break, they "do not invite home or do not engage in joint leisure activities outside the work setting" (p. 230). A social friend is a co-worker with whom the participants have the most intimate relationship and "meet at social events outside the work setting such as invitation to home with each other" (p. 230). Employees with mental retardation could also have these three types of relationships with their co-workers. Considering the impact of a friendship formation, having a social friend in their work settings may be one of the ultimate goals of both supported employees and service providers.

Recent studies analyzing the reality of social interactions in supported employment settings have revealed, however, that even though supported employees with mental retardation interact socially during work, only a small percentage of them get together with their co-workers without mental retardation during lunch or break, and even fewer do so outside of work (Belture, & Smith, 1994; Butterworth, & Strauch, 1994; Rusch, Hughes, Johnson, & Minch, 1991; Shafer, Rice, Metzler, & Haring, 1989). This fact suggests that although quite a few supported employees have work acquaintances, few have work friends, and even fewer have social friends. In addition, it should be noted that workers with mental retardation interacted socially outside of work significantly less than those without mental retardation (Rusch, Wilson, Hughes, & Heal, 1994). Considering the fact that employees with mental retardation and those without mental retardation do not differ significantly in terms of the frequency of work-related social interactions with their co-workers (Chadsey-Rusch, Gonzalez, Tine, & Johnson, 1989; Parent, Kregel, Metzler, & Twardzik, 1992; Ferguson, McDonnell, & Drew, 1993), it can be

stated that increases in social interactions do not necessarily ensure development of social friends.

Quite a few empirical studies have addressed environmental and dispositional factors affecting increases in social interactions. These studies suggest that placement approach rather than IQ or level of mental retardation (Rusch, Johnson, & Hughes, 1990; Storey & Horner, 1991), type of task (Hagner, 1992), length of job coach interaction (Ferguson, McDonnell, & Drew, 1993; Hagner, 1992), type of job (Rusch, Wilson, Hughes, & Heal, 1994), information sharing about supported employees with co-workers (Hagner, 1992; Rogan, Hagner, & Murphy, 1993), and number of co-workers without disabilities (Rusch et al. 1994) contribute to types and frequency of social interactions. Although these studies focus on some factors affecting increases in social interactions, few studies in the field of special education have investigated factors contributing to development of relationships in an empirical fashion.

In this review, I will detail the extent to which existing research has addressed social interactions that may contribute to enhancing social relationships between supported employees with mental retardation and their co-workers without mental retardation. I will also review studies focusing on youth friendships from the field of social psychology to identify the extent to which they have clarified the nature of social interactions contributing to a friendship formation. By comparing the findings in the two fields, I will discuss practical implications and some issues regarding social interactions and social relationships that should be addressed by future research.

Social Skills Contributing to Development of Relationships: Data From the Developmental Disability Literature

Comparative Analyses

As mentioned earlier, although supported employees are likely to have workmates, few supported employees seem to have workfriends, and very few have social friends (Belture & Smith, 1994; Butterworth & Strauch, 1994; Rusch et al., 1991; Shafer et al., 1989). Investigating differences between supported employees and their co-workers in the content of interactions

and contexts where supported employees and their co-workers interact may provide researchers and practitioners some clues to identifying the nature of social interactions affecting friendship formation (Parent, Kregel, Metzler, & Twardzik, 1992).

Social interactions during work. Storey and Knutson (1989) investigated similarities and differences between workers having mental retardation (n=6) and workers without mental retardation (n=6) for the frequency of social interactions only during work periods in a variety of competitive workplaces such as a bakery and a nursing home. The researchers used a behavioral observation form that included categories of (a) job engaged, (b) who the interaction was with, and (c) the type of interaction. These researchers used an interval recording system based on a 10-second observation and a 5-second recording for 15 minutes per day for 10 days for each participant. Overall, supported employees and their co-workers did not significantly differ in frequency of social interactions. However, this study indicated that workers without mental retardation interacted more frequently with co-workers and customers, whereas supported employees interacted more with their school or agency supervisors. This fact implies a potential negative effect of external supports on social interactions between supported employees and their co-workers.

Storey, Rhodes, Sandow, Loewinger, and Petherbridge (1991) also compared social interactions of workers with severe mental retardation (n=8) and that of workers without mental retardation (n=7) during work. The methodology utilized in this study was identical to that used by Storey et al. (1989) but the investigators collected the data over a one-year period. This study indicated that although the interaction pattern between workers with mental retardation and workers without mental retardation were similar overall, workers with mental retardation engaged both in work conversations and personal conversations significantly less than did workers without mental retardation. This finding contradicts the 1989 study indicating that supported employees and their co-workers do not differ significantly in the frequency of work conversations and personal conversations during work. Several factors may be responsible for this discrepancy. First, the 1989 study selected participants with higher functioning level

compared to the 1991 study. Second, whereas the participants in the 1989 study were placed individually into workplaces, those in the 1991 study were placed under the enclave model. Third, the differences of the two studies in measurement may account for this discrepancy. The 1991 study measured social interactions for a total of six hours across 24 days per participant whereas the 1989 study measured social interactions for a total of 2.5 hours across 10 days.

The results of these two studies should be interpreted cautiously. First, the data regarding frequency of social interactions in the two studies included not only co-workers but also job coaches, supervisors, and others as the persons with whom workers interact. Considering the fact that supported employees interacted with job coaches more times than with co-workers, it is difficult to determine how often they would interact with co-workers if job coaches were not present. Second, these studies measured social interactions only during work periods. Therefore, if these two groups had been compared in terms of types and frequency of social interactions with their co-workers not only during work but also during lunch and break, the differences between two groups might have been more distinctive.

Social interaction during work, lunch, and break. Chadsey-Rusch, Gonzalez, Tine, and Johnson (1988) analyzed types and frequency of social interactions between workers with mental retardation (n=8) and workers without mental retardation (n=8) in seven competitive workplaces (6 food services and 1 print service), using narrative recording procedures. These researchers observed social interactions five times across the four contexts (i.e., arrival at work, break or lunch period, and two randomly selected work periods) in which workers typically interact socially. The researchers coded the interactions in the following manner: (a) the main initiator and receiver was noted, (b) if the receiver responded to the initiator, that was noted, (c) each interaction was coded as either task-related or non task-related, and (d) the purpose of interaction was noted. The results of this study indicated that supported employees and their co-workers did not differ significantly in the frequency of task-related conversations with their co-workers. However, workers with mental retardation engaged less in non task-related conversations with their co-workers than did workers without mental retardation across all

periods. Specifically, the researchers discovered that workers with mental retardation participated in sharing nonwork-related information (e.g., weather, sports, or interest), teasing, and joking much less than did their co-workers during lunch and break period.

Following these studies, Parent, Kregel, Metzler, and Twardzik (1992) examined similarities and differences between workers with moderate or severe mental retardation (n=15) and their co-workers without mental retardation (n=15) across 13 competitive workplaces. These researchers observed social interactions of target workers during work, lunch, and break periods using an interval recording (a 10-second observation and a 5-second recording). These researchers collected the following data: (a) the number of persons present in the work environment, (b) the level of task dependency (isolated, parallel, or interactive work), (c) the type of interactions (initiation or response), (d) the content of the interactions (work or non work-related), (e) the appropriateness of the interactions, and (f) unknown interactions. Although these researchers do not clarify if the frequency of interactions included not only co-workers but also job coaches, supervisors, and others, this study indicated that these two groups did not differ significantly on total number of interactions. However, workers without mental retardation engaged more frequently in break time interactions than did workers with mental retardation. This finding is consistent with Chadsey-Rusch et al. (1988) indicating that supported employees and their co-workers significantly differ in nonwork-related conversation during lunch and break when the majority of conversations are nonwork-related conversations.

Finally, Ferguson, McDonnell, and Drew (1993) compared workers having moderate or severe mental retardation (n=6) with workers without mental retardation (n=6) for types and frequency of social interactions. These researchers analyzed the data in the following manner: (a) the purpose of the interaction, (b) the worker as either initiator or receiver of the interaction, and (c) the purpose of interaction (work-related or non work-related). These researchers conducted four, 2-hour observations at different times (i.e., work time and break time). This study utilized narrative recording procedures to capture the breadth of social interactions and to minimize an observer bias as did Chadsey-Rusch et al. (1988). These researchers found that

although the frequency of responses to social interactions did not differ between these groups, co-workers initiated interactions more frequently than did supported employees. In addition, the co-workers initiated more joking and teasing than did workers with mental retardation. This finding extends Chadsey-Rusch et al. (1988) indicating that supported employees do not participate as many times in joking and teasing as their co-workers do.

Interestingly, although Ferguson et al. (1993) reported that workers with mental retardation participated as many times in non work-related conversations as workers without mental retardation, this finding contradicts Chadsey-Rusch et al. (1988) indicating that workers with mental retardation engage in non work-related conversations with their co-workers less than do workers without mental retardation. The following factors may account for this discrepancy. Ferguson et al. included two new employees without mental retardation as their research subjects. These employees much more frequently asked questions related to their tasks to master new work than did any other employee. Due to the small sample size, this factor may significantly affect the data in reducing the frequency of non work-related interactions and increasing the frequency of task-related interactions between workers without mental retardation.

In summary, using comparative analyses, several studies have investigated differences in the content and contexts of social interactions between supported employees and their co-workers. The findings of these studies were somewhat discrepant. This is likely to be accounted for by several factors such as the small number of participants and a variety in length of employment. However, overall, supported employees interact socially with their co-workers during lunch and break, (when the majority of conversations have to do with non work-related conversations such as joking and teasing and talking about sports) significantly less than did their co-workers. Considering the fact that few supported employees make friends with their co-workers, it might be hypothesized that increases in non work-related interactions between supported employees and their co-workers would contribute in some degree to the development of closer social relationships.

The following section will address how social skill training for individuals with mental retardation in employment settings have addressed issues related to increases in social interactions and development of social relationships.

Social Skill Training: Toward the Development of Social Relationships

Several studies have examined effective strategies in increasing social interactions between individuals with mental retardation and their co-workers during arrival time, lunch, or break in employment settings (e.g., Breen, Haring, Pitts-Conway, & Gaylord-Ross, 1985; Gaylord-Ross, Park, Johnston, Lee, & Goetz, 1995; Park & Gaylord-Ross, 1989; Park, Simon, Tappe, Wozniak, Johnson, & Gaylord-Ross, 1991; Storey & Gaylord-Ross, 1987). Of these studies, only Gaylord-Ross et al. (1995) and Park and Gaylord-Ross (1991) measured the effects of increases in social interactions between supported employees and their co-workers on their social relationships.

Using a role-playing and a problem-solving procedure, Park & Gaylord-Ross (1989) taught three youths with moderate mental retardation to increase initiations, expansions, and terminations of conversations with their co-workers in restaurant and beauty college settings. The results of this study indicated that a problem-solving procedure was effective in increasing target behaviors. In addition, these researchers examined how attitudes of co-workers and supervisors toward the three participants were changed in relation to increases of initiations, expansions, and terminations of conversations by comparing their attitudes prior to and after intervention. They indicated that almost all areas (communication, desire of others to have lunch together, physical appearance, acceptance, and inclusion in social get-togethers) significantly improved after the employees with mental retardation improved their functioning in the three target social behaviors.

Considering the fact that they conducted social skill training for two of the three participants during lunch and break, the content of the conversations might have more to do with non-work-related conversations than with work-related conversations. However, the authors do not specify the content of the conversations taught in this study. Furthermore, it should be noted that although attitude seemed to be changed after implementing the

intervention, positive attitudes do not necessarily reflect actual behaviors. Consequently, it is still unknown if the participants in this study truly spent more time with co-workers during lunch, break, and after work than they did prior to intervention. In addition, it can not be concluded that the social relationships between the supported employees and their co-workers or supervisors developed.

Using social skill training and co-worker intervention, Gaylord-Ross, Park, Johnston, Lee, and Goetz (1995) trained two females with dual sensory impairment to use social interaction skills in a fast food restaurant and a department store. As part of the social skill training, the researchers created response chains comprising of social routine for both participants. During check-in time and breaktime, the participants were taught the skills such as greeting, asking for help, exchanging a time card, exchanging food, and saying "thank you". Each training session lasted 5 to 10 minutes. These young women practiced a role-play and rehearsal with their co-workers using a social routine. The time delay procedure was used to ensure errorless learning. In co-worker training, the 20-30 minute sessions first provided a rationale for the need for social integration in the two supported employees. Next, the co-workers were asked to generate one or more activities that could better integrate the women. The results of this study indicated that the number and duration of social interactions improved as a result of social skill training and co-worker training. In addition, for one student, social skill training led to a further escalation of exchanges after the training had ceased.

In this study, Gaylord-Ross et al. (1995) asked other co-workers and supervisors to complete a 10-item social validity questionnaire to identify the effectiveness of these interventions in enhancing social competence and including these women into the social network within the work settings. The results were inconclusive. On the one hand, workers and supervisors who did not participate in the interventions did not credit one woman with significant increases in social competence and social acceptance. However, the supervisor who participated in the co-worker training credited her with the increases in the following three items: overall social competence, getting together outside of work, and having friends at the

workplace. Regardless of the participation of the co-worker training, however, all raters credited the other woman with significant increases in social competence, getting together outside of work, having friends at the workplace, and socially interacting with other workers. Attention, however, should be paid to limitations of the study because it did not clarify what factors particularly contributed to the development of social relationships.

In summary, only two studies were identified as examining the effects of increases in social interactions of supported employees with their co-workers on development of social relationships. The results of these trainings whose target behaviors included non-work-related conversations were relatively positive in improving the social relationships. However, the measures used in these two studies did not adequately assess development of relationships. In addition, with regard to Gaylord-Ross et al. (1995), the study did not conduct component analyses to identify what factors in the interventions particularly account for the change of social relationships. Consequently, it can be concluded that to date social skill training in employment settings have focused on increases in social interactions between supported employees and their co-workers but have not explored effective strategies toward development of their relationships.

Social Skills Contributing to Development of Relationships: Data From the Social Psychology Literature

Detailing the differences in the nature of social interactions among workmate relationships, work friendships, and social friendships may enable researchers to propose some critical social skill areas that may contribute to building friendships. If each relationship has a unique characteristic present in the pattern of social interactions, then it could be postulated that acquiring the pattern may drive the development of relationships. Unfortunately, no studies in the field of developmental disabilities have investigated social interactions in relation to social relationships in the aforementioned ways. However, several social psychologists have investigated the nature of social interactions in relation to different types of relationships using college students. Although caution must be used when generalizing the findings of these studies

to understanding the interactions and relationships between supported employees and their co-workers, these studies may provide some important suggestions in terms of the social interactions contributing to the development of relationships of these populations whose age is relatively similar to that of college students.

Cross-Sectional Studies

Hornstein and Truesdell (1988) examined differences on the level of descriptive intimacy (conversing about private topics) and evaluative intimacy (expressing thoughts or feelings) among strangers', acquaintances', and friends' conversations. They asked ten-female college students (primary participants) to install recording equipment in their home to collect naturally occurring telephone conversations between females who were close friends, acquaintances, or strangers. They divided each conversation into topics that were used as the units of analysis for scoring the types of conversational pattern. The results of this study indicated that conversations conducted within the context of the three relationships could be categorized as low descriptive and low evaluative intimacy for stranger relationships, low descriptive but high evaluative intimacy for acquaintanceships, high descriptive and high evaluative intimacy for friendships. In addition, this study suggested that each conversation could be placed in a continuum regarding the degree of self-disclosure.

Planalp and Benson (1992) also investigated the communication behaviors that discriminated friends' conversations from acquaintances' conversations. They recorded 36 conversations (one conversation lasted 30 minutes), half between friends and the other half between acquaintances using 12 female-female pairs, 12 male-male pairs, and 12 female-male pairs. They excerpted a two-minute segment from each conversation and asked the same participants to listen to the segments, to indicate whether the interactors were friends or acquaintances, how confident they were of their judgments, and why they made the judgments. The results of this study indicated that mutual knowledge and content intimacy (self-disclosure) were the most generalized cues used by the student judges and contributed to the correct judgments across conversations.

Because Planalp & Benson (1992) relied on perceptions of students' judges to identify the differences between friends' and acquaintances' conversations, it is not clear if the discrimination is actually accurate. In 1993, Planalp operationalized each reason used by students' judges to distinguish between friends' conversations and acquaintances' conversations in the earlier study. Using the operationalized definition, the researcher coded each conversation collected in the 1992 study. This researcher found that mutual knowledge, specifically, knowledge of other people, knowledge of the partner's biography, and knowledge of the partner's present life, were the most powerful determinants to discriminate friends' conversation from acquaintances' conversations. In this study, content intimacy (self-disclosure or emotional expressiveness) was not important in discriminating between the two relationships. However, as the author argues, considering that knowledge about partners is likely to be accumulated by self-disclosing; this result also supports the importance of self-disclosure in distinguishing between friendships and acquaintanceships.

In summary, the studies comparing the nature of conversations engaged in by each relationship dyad (i.e., stranger relationships, acquaintanceships, and friendships) concluded that each relationship may be distinguished in terms of expressing thoughts and feelings, disclosing private events, and having mutual knowledge. Based on these findings, it may be hypothesized that increases in the degree of self-disclosure and mutual knowledge contribute to the relationship change from acquaintanceships (workmates) to friendships (social friends).

Longitudinal Studies

Hays (1985) investigated how the breadth and intimacy levels of social interactions and the perceived benefits and costs stemming from interpersonal relationships change as relationships progress from initial acquaintanceships to close friendships. First, this researcher asked first year college students (n=84) to select two individuals of their same sex with whom they might make good friends as the semester went on. Then, the researcher asked them to complete the questionnaires regarding the quality and quantity of social interactions and quality of relationships every three weeks throughout the semester (four times total).

The researcher found that social interactions progressed from a superficial level to an intimate level as their relationships developed throughout the semester. This finding suggests that the degree of self-disclosure increases as the relationship progresses. However, the breadth and frequency of social interactions decreased at later stages although it progressed at early stages. College students usually reduced the time they spent with their particular friends as the semester progressed because of increases in assignments, examinations, and participation in several activities. As the author stated, these factors may account for decreases in the breadth and frequency of social interactions with friends. He also discovered that the students who successfully made close friends with their partners obtained a greater degree of benefit from their relationships than did those who did not form close friends with their partners. In particular, he reported that the confidant and emotional support categories were the most distinctive benefits in discriminating close friendships from nonclose friendships.

Hornstein & Truesdell (1988) also examined if the level of intimacy in conversations progressed from evaluative but non descriptive intimacy to evaluative and descriptive intimacy as interpersonal relationships developed. These researchers asked 72 female college students (36 in friend dyads and 36 in acquaintance dyads) to pick an initial topic from the list given to them and discuss the topic. After choosing the initial topic, the participants were allowed to select a topic that was not in the list. This procedure was repeated every four weeks (three times total) in a laboratory setting. Topics were identified from these conversations and were analyzed in terms of descriptive and evaluative intimacy. The results of this study indicated that conversational intimacy did not develop significantly during three months even though 39% of participants categorized as acquaintance dyads labeled their partner as a friend. Based on these results, the researchers suggested that although quantity of intimate information disclosed within dyads do not significantly change, qualitative aspects in evaluative and descriptive intimate information may change as relationships develop.

In summary, one (Hays, 1985) of the two studies using a longitudinal design demonstrated that the level of self-disclosure increases as relationships progress. This study also suggested

the importance of providing the partner not only tangible support but also emotional support. The other study (Hornstein & Truesdell, 1988) did not clearly demonstrate the progress of self-disclosure in relation to development of relationships. However, the study suggested that quality aspects of both evaluative and descriptive intimate topics picked up by dyads may change as their relationships progress.

Discussion

Friendship formation in work settings may enhance the probability of psychological well-being, social support, and job retention of workers. Even though supported employees may have workmates, few supported employees are likely to have work friends or social friends suggesting that a direct focus of research on the development of relationships of supported employees is needed.

In the field of developmental disabilities, comparative analyses have been conducted to identify similarities and differences in types and frequency of social interactions between supported employees and their co-workers without disabilities. Although the main purpose of these studies was not to identify important social behaviors that contribute to development of relationships, these studies have provided some clues regarding social behaviors that might contribute to development of relationships. Considering the fact that these two groups significantly differ in frequency of non-work-related interactions (e.g., sharing information such as weather, sports, or personal information, and joking and teasing) during lunch and break, it may be stated that increases in these types of interactions engaged in by supported employees with their co-workers might have some impact on development of their relationships.

In the field of the social psychology, several researchers have investigated unique characteristics of the different types of relationships (strangers, acquaintances, friends) in terms of the nature of social interactions. In addition, a few researchers in the social psychology have conducted longitudinal studies to examine how the nature of social interactions change according to a relationships' progress from acquaintances to friendships. These studies

suggested that increases in the level of self-disclosure, mutual knowledge, and emotional support may contribute to the development of relationships.

The findings of the aforementioned studies may provide some practical implications regarding effective strategies for the development of relationships between supported employees and their co-workers. First, in the area of social skill training, it may be important for employment specialists to analyze the contents of conversations taught for supported employees in terms of not only work- or non work-related conversations but also the level of self-disclosure used. For example, suppose that a supported employee participated in conversation with his or her co-workers about a NBA basketball by saying, "Yesterday, the Bulls won the game," "The final score was 105 to 99." Using the disclosure continuum, this statement is neither descriptive nor evaluative in terms of intimacy. If the supported employee was encouraged to self disclose more the individual could say "The Bulls won the game. I was very excited" (evaluative intimacy) or to say, "The Bulls won the game. I watched with my father. I was very excited" (both descriptive and evaluative). These statements also may contribute to increases in mutual knowledge and may affect the development of relationships.

Second, it is also recommended that employment specialists communicate with co-workers about personal events, thoughts, and feelings regarding supported employees who have limited communication skills. Although issues related to privacy should be considered, this communication may promote supported employees and their co-workers so they have mutual knowledge.

Third, considering that self-disclosure progresses according to development of relationships, supported employees may be required to control the degree of self-disclosure according to relationships. Supported employees need to share personal information with their potential friends not only to develop relationships but also to predict future relationships (Derlega, Metts, Petronio, & Margulis, 1993). If self-disclosure by supported employees causes negative reactions with their potential friends due to the substantial discrepancy between the level of self-disclosure by supported employees and the acceptable level of self-disclosure by co-

workers, supported employees may need to use more superficial level of disclosure until the relationship progresses.

Finally, it is also recommended that supported employees receive training to be able to provide emotional support (e.g., listening with empathy) as well as tangible support (e.g., providing information, physical support) if they lack these skills. Although researchers and practitioners have addressed this issue related to increases in social support from co-workers or supervisors for supported employees (Hughes, Rusch, & Curl, 1990; Nisbet & Hagner, 1988; Rogan, Hagner, & Murphy, 1993; Rusch & Minch, 1988) , they have neglected this issue regarding increases in social support for co-workers or supervisors by supported employees.

Existing research addressing the nature of social interactions affecting the development of relationships is suggestive, not conclusive and further research is needed. First, the comparative analysis in the field of the developmental disabilities has never addressed different types of relationships that might exist in supported employment settings. Unless social interactions are delineated in relation to different types of relationships, the nature of social interactions contributing to development of relationships will not be clarified adequately. Second, studies in the field of the social psychology have delineated the nature of social interactions in relation to different types of relationships. However, almost all of these studies used college students as participants. In addition, some of the studies used laboratory settings. Therefore, the extent to which these findings can be generalized to the social interactions and relationships between supported employees and their co-workers has not been identified.

The following investigations should be conducted in future research. First, the reality of friendships between supported employees and their co-workers has not been directly investigated. Although in this review, it was hypothesized that very few supported employees have social friends, based on some studies (e.g., Rusch et al., 1991) investigating frequency of befriending after work, it is not known what percentage of supported employees have workmates, work friends, or social friends. In addition, it is also not known what percentage of employees without mental retardation have workmates, work friends, or social friends. To

clarify the status of supported employees in terms of social relationships with their co-workers, the status of social relationships among employees without mental retardation also should be investigated.

Second, researchers need to investigate how the nature of social interactions between supported employees and their social friends is distinguished from the nature of social interactions between supported employees and their workmates or work friends. It has not been investigated if these three relationships in fact differ in the degree of self-disclosure and mutual knowledge and the nature of benefits.

Finally, research is needed to investigate effective interventions to develop social relationships between supported employees and their co-workers. Although studies addressing social skill training in employment settings have examined effective strategies for increases in social interactions between supported employees and their co-workers, few studies have addressed effective strategies to develop relationships between the two groups. It may be valuable for researchers to investigate the effectiveness of increases in the degree of self-disclosure, mutual knowledge, and emotional support on the status of relationships.

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Descriptions of Close Social Relationships Between Workers with and Without Mental Retardation

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Running Head: DESCRIPTIONS OF CLOSE RELATIONSHIPS

Abstract

The purpose of this study was to describe the social relationships that exist between workers with and without mental retardation in integrated work settings. Twenty-five pairs of workers with close social relationships, and informants who were familiar with the relationships, were interviewed across three areas: (a) the context that created the opportunity for the relationship to develop, (b) the qualities that characterized the relationship, and (c) advice to others about promoting relationships. The results suggested that certain personal and contextual factors may play a role in the formation of relationships. Although close emotional support did not seem to be prevalent, other perceived benefits for being in the relationship are described for both members. Advice to others for promoting relationships is discussed and future research areas are highlighted.

Descriptions of Close Social Relationships Between Workers With and Without Mental Retardation

The work setting provides a context where social relationships, and often friendships, develop. Stewart (1985) indicated that work settings are frequently the second most important social unit (for those employed) after the immediate family context. This is not very surprising when one considers that most adults who work spend at least eight hours a day in the employment setting. This significant amount of time provides ample opportunities for workers to get to know one another.

Pogrebin (1987) notes that besides spending time together, close social relationships have an increased probability of forming because co-workers share a major life experience—their job. The job allows co-workers to have common experiences, pressures, concerns, vocabulary, and culture.

Of course, not everyone who works will develop close social relationships with their co-workers. Even though they have their jobs in common, co-workers may share few other interests. In addition, since close social relationships, and in particular friendships, are built on the qualities of reciprocity, intimacy, emotional support, and companionship (Argyle & Henderson, 1984; Duck, 1991; Maxwell, 1985), the lack of these qualities predict other types of relationships forming, such as acquaintanceships.

Today, people with disabilities are working alongside their nondisabled co-workers more than ever before (McGaughey, Kiernan, McNally; Gilmore, & Keith, 1995; Wehman & Kregel, 1995). With this situation, there are opportunities for workers with and without disabilities to form close social relationships. The question that needs to be asked is whether or not close social relationships are forming in these employment contexts.

To date, very few studies have provided information about the close social relationships existing between workers with and without mental retardation. In fact, some studies indicate that workers with mental retardation may be regarded more like work acquaintances than work friends or social friends (Belcher & Smith, 1994; Shafer, Rice, Metzler, & Haring, 1989). Past

research has also shown that workers with mental retardation interact less frequently with their nondisabled co-workers during lunch and break times about nontask-related topics which may lead to closer social relationships (e.g. Chadsey-Rusch, Gonzalez, Tines, & Johnson, 1989; Parent, Kregel, Metezler, & Twardzik, 1992). A recent study by Ohtake and Chadsey (in press) also demonstrated that nondisabled co-workers rarely self-disclosed intimate topics to employees with mental retardation.

Although data from past research may be somewhat discouraging, it should not imply that close social relationships do not exist between individuals with and without disabilities. One only has to read the accounts of the social relationships described by Newton, Olsen, and Horner (1995), Shapiro (1993), and Strully and Strully (1993) to know that intimate relationships are possible. However, these written accounts are sparse, and have not taken place in employment settings suggesting the need for further research in this area.

The purpose of this study was to describe the social relationships that existed between workers with and without mental retardation in integrated work settings. Twenty-five pairs of workers with close social relationships, and informants who were familiar with the relationships, were interviewed across three areas: (a) the context that created the opportunity for the relationship to develop, (b) the qualities that characterized the relationship, and (c) advice to others about promoting relationships. We believe this study is important because it is one of the first to describe the relationships existing between workers with and without mental retardation in employment settings.

Method

Participants

A total of 100 individuals participated in the study forming 25 groups of 4 respondents each. All groups consisted of one worker with and one without mental retardation who had a close social relationship with one another (a dyad), and two other individuals (e.g., supervisors, job coaches) who offered their perspective on the dyadic relationship. There were 11 male dyads, 8 female dyads, and 6 male-female dyads. Of the mixed gender dyads, five of them

consisted of males with mental retardation paired with five female nondisabled co-workers, and one consisted of a female with mental retardation paired with a male co-worker. In total, there were 28 male participants in the dyads and 22 female participants.

The dyads were purposively identified by job coaches who worked for human service agencies. Job coaches were asked to identify relationships in integrated work settings where a worker with mental retardation had a close social relationship with a nondisabled co-worker. In order for a nondisabled co-worker to be selected as being part of the dyad, they: (a) had to have known the person with mental retardation for at least three months, and (b) must have seen the individual with mental retardation at least two times a week. "Seeing" the person meant eating lunch with the person, seeing the person outside of work, and so forth. The crucial issue was that the social relationship went beyond being just an acquaintanceship and included social opportunity. The co-workers also must have worked with the individual, and could not have been a relative or paid professional.

Three-fifths of the individuals in the dyads were Euro-Americans. In addition, there were 9 African Americans, and 1 Latino involved in a close relationship. Most in the dyads had known each other for substantial period of time, an average of two years. The average age of individuals with mental retardation in the dyad was 27.3 years (SD = 6.9), and the average age of the persons with whom they had close social relationships was 31 years (10 of these 25 persons without mental retardation did not give their age). The mean IQ of the 23 persons with mental retardation for whom it was available was 60 (SD = 10.5). Of the nondisabled co-workers in the dyad, one third had a family member or relative who had a disability.

The dyads worked in a variety of occupations ranging from manufacturing (seven dyads), food service (five dyads), and janitorial and grocery stores (three dyads each). Other categories of businesses represented in the study were laundry, library, graphic services, off-track betting, and hotel/motel. All businesses were located in a midwest state; 17 of the dyads worked in 3 different midsize cities, 5 worked in one large urban city, and 3 worked in 2 small rural cities.

As stated previously, two other individuals (called informants) who were familiar with the dyadic relationship also participated in the study. The majority of these people were other co-workers (N = 24) or supervisors (N = 19), followed by parents (N = 3), job coaches (N = 3), and a boyfriend (N = 1).

Data Collection

Data collection procedures consisted of conducting interviews with all 100 participants. The interview protocol developed for the study consisted of three primary sections. The first section asked questions about contextual factors that may have influenced the relationship. For example, questions were asked about how the individuals in the dyad met each other, if they worked on common job tasks, and information about the social climate of the job setting. The largest section of the interview protocol consisted of questions that asked for information about the qualities of the relationship. In particular, questions probed the benefits of being in the relationship and whether or not different types of support (emotional, informational, and instrumental) and companionship were available. The third section consisted of miscellaneous questions; respondents were asked how the relationship could be better and if they had any advice to give to others on ways to promote relationships between people with and without disabilities. Interviews lasted approximately 35 minutes and were conducted by the first author and two doctoral students in special education who had recently completed a two sequence course on qualitative interviewing techniques and data analysis. Before actual interviews with participants occurred, each interviewer conducted one pilot interview with someone not in the study (one of these pilot interviews was with an individual with mental retardation).

Interviews took place in a variety of settings, such as on the work site, after work in a coffee shop, or in a participant's home. Although interviewers asked all of the questions on the protocol, they were encouraged to follow up each question as needed to obtain clarification and elaboration of responses. All interviews were audiotaped, and each participant received $10.00 for their time.

Data Analysis

All participant interviews were transcribed verbatim and resulted in over 2,000 pages of data. We used a constant comparative analysis to categorize themes emerging from the data (Lincoln & Guba, 1985). Major codes were initially developed from the interview questions and then themes or subcodes that characterized the major codes were developed by consensus across team members who had conducted the interviews. Another member, who was also a doctoral student, offered an outsider's perspective on what the data transcriptions were suggesting.

A computer database was created to facilitate the coding process. Each major coding category, for example, "outside work activities" or "reciprocity" served as a data field, so information, most often in the form of direct quotes, could be entered into the data base. When one-third of the data were entered, data were displayed by major code and an initial set of themes or subcodes that characterized the major code were developed; this process was repeated when the second one-third of the data were entered. Team members met, nominated themes or subcodes, and reached consensus on the ones selected to portray the data. Some of the major codes revealed similar themes that could be subsumed under other codes, and some questions were the ones that resulted in answers that were not very informative (like "I don't know"), so the original 47 major codes were reduced to 22 codes.

The subcodes that characterized each of the 22 major codes were the data of interest. The subcodes within each category ranged from 5 subcodes for "How did you meet?" to 12 codes for "What do you get out of the relationship?"

All of the typed transcripts were read again, and every statement that was made by a respondent was assigned a subcode by one of the doctoral students on the team. The first author conducted intercoder reliability across 20% of randomly selected interviews. Average coding reliability, consisting of the number of agreements divided by disagreements plus agreements, was 90% with a range of scores from 85-93%.

Results

The data are reported here in three areas. First, we describe the contextual factors that may have created the opportunity or influenced the formation of the social relationship between the dyad members. Second, we discuss the qualities of the relationship with particular emphasis placed on the benefits of being in the relationship as perceived by respondents and whether or not intimate exchanges occurred. Finally, we describe the advice given by the respondents on ways relationships between persons with and without disabilities could be improved. For the purposes of this manuscript, data from all four respondents was used and the most frequently occurring themes or subcodes are noted. Quotes from individual respondents are used throughout the results section to further characterize the data.

Contextual Factors

We were interested in whether or not there was something about the work setting or work culture that perhaps promoted the social relationships. In particular, we asked about the work climate of the business. When respondents were asked about the work climate, 36%[1] of them stated that it was a friendly and relaxed work setting characterized by positive, good people who were casual and informal. For example, one informant stated "I've been in 14 Eagle stores, and this is the best one by far. It has an excellent group of people. There's a lot of relationships that started because of the store and they carry them outside." Fifteen percent of the respondents also noted that the work setting encouraged people to communicate. One worker with a disability noted that "...we all have a voice, we are all listened to and we're relaxed."

In some work settings, however, 19% of the respondents reported that people could socialize only as long that work was finished, and some respondents (11%) stated that the work setting was only "easy" at breaks or lunch. One worker with a disability expressed that "they don't like it if you do a lot of talking. You know they think you shouldn't is what they say — you know you've got time on your breaks and stuff (to socialize)."

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[1]The themes or subcodes that characterized the majority of the respondents answers are reported, and may not, in all cases, add up to 100%.

Many of the work settings did have group social activities as part of their culture. For example, 48% had holiday parties and picnics, and an additional 10% had informal get togethers such as getting together to eat pizza or engaging in friendly contests like "who can make the best coffee contest."

Nearly all the dyads (81%) saw each other everyday at work, and if they didn't work on the same task, they worked in the same general area. Throughout the day, there were opportunities to talk about topics that were not related to work. For example, 29% of the respondents reported that they would talk about these topics throughout the day while working, but 37% reported that this occurred primarily during lunch or breaks.

For the most part, supervisors had positive social relationships with the workers with mental retardation, but sometimes the relationships depended on the individual's ability to work. Twenty-three percent of the respondents reported that the supervisors were supportive of the worker with mental retardation, and another 23% reported that they believed that supervisors liked the worker. Fourteen percent indicated that the supervisors believed that the worker with mental retardation had good job-related skills, and 9% reported that supervisors thought the worker was "OK" as long as he or she worked.

Respondents reported more positive relationships with other co-workers compared to supervisors. Over half of the respondents (59%) stated that other co-workers liked and supported the worker with mental retardation and that the overall relationship in the work setting was like "one big happy family." Twelve percent of the respondents, however, indicated that the co-workers felt "so-so" about the worker. One of the nondisabled members of a dyad noted, "All of them like her, but some of them are leery. They're not approachable to her and so I'd say half of them probably don't speak to her."

When respondents were asked how the two people in the dyad met, 28% said that it "just seemed to happen," although 22% said they were introduced by the boss or other co-workers, and 14% said they were introduced by a human service worker. When asked who seemed to make an effort to establish the relationship, 30% reported that the relationship just seemed to

develop naturally over time because the two people worked together. However, 31% reported that the nondisabled member of the dyad was responsible for starting the relationship. As to why the nondisabled worker made the effort to establish the relationship, two reasons seemed prominent among co-workers without disabilities: (a) they were concerned about the worker with mental retardation, and (b) they were very social people.

Qualities of the Relationships

Respondents were asked questions about the qualities that characterized the relationship between members of the dyad. Specifically, respondents were asked to describe the benefits dyad members received; the types of emotional, informational and instrumental support; and the companionship experienced.

Benefits. All of the respondents were asked why they thought the dyad members liked being in the relationship. Table 1 lists these reasons or benefits for the workers with mental retardation.

Insert Table 1 about here

Table 1 shows that respondents believed that the top three reasons workers with mental retardation liked being in the relationship were due to the personality characteristics of the nondisabled worker, being able to establish a friendship, and having someone to talk to. One worker with mental retardation stated "Well, he is good to get along with, he is good to be trusted, and he is bright, honest . . . I mean, he is a person to trust."

Other information supporting the idea that personality characteristics of the nondisabled co-workers were a benefit emerged, for instance both members in the dyads were reported to have similar personality traits. One informant stated, "their mannerisms are a lot the same. You can see a little bit of themselves in the other person. They are birds of a feather." Another informant stated, "They both have the same type of joking personality."

Several workers with mental retardation simply stated that the nondisabled workers were their friends, and others expressed the benefit of being able to talk to the nondisabled worker, "Well, I like talking to her and she's easy to talk to and you can joke around or whatever." Another worker stated, "I like to talk to her—she helps me through stuff." In fact, several informants related that they thought being able to discuss personal problems was a primary benefit of the relationship for the workers with mental retardation. However, not all individuals spoke only of personal problems. One informant commented, "They have common experiences—they talk about girlfriends, sports, basketball."

Table 2 lists the reasons respondents believed nondisabled workers liked being in the relationship. The top three reasons listed were the same as for the workers with mental retardation: (a) personality characteristics, (b) friendship, and (c) somebody to talk to.

Insert Table 2 about here

There were many personal characteristics of the people with mental retardation mentioned as benefits gained from the relationship. The following quotes typify the comments informants and nondisabled co-workers made of some of the workers: "He's fun to be around. He likes to joke around a lot; that's what I like to do." "So honest and sincere." "High-spirited and fun to work with; she really enjoys life." "She gives and gives and doesn't ask for anything." "She is smart in her own way."

In addition to enjoying the personal characteristics of the workers with disabilities, many nondisabled co-workers enjoyed conversations with the workers with disabilities. When asked, one nondisabled co-worker said "everyday conversations" contributed to their relationship and several others mentioned that they "talked about things they had in common."

Like the workers with mental retardation, friendship was also stated as a benefit of the relationship. One nondisabled co-worker said "we get a good friendship out of it," and one of the informants stated, "It's just a friendship—a friendship you know."

A fourth benefit that emerged for nondisabled co-workers was that they felt good about helping another person. One nondisabled co-worker stated that she "got inspired and felt happy" from her relationship. An informant commented that she thought the nondisabled co-worker liked being in the relationship because it "makes her feel good to help him—she feels needed." And another informant related "to know she can help somebody and know she is needed—the satisfaction."

A final question related to benefits was how respondents perceived reciprocity. Respondents were asked if one dyad member gave more to the relationship than they received, if they gave less, or if it was equal. Across all respondents, 68% believed that the dyad members gave equally. In 20% of the dyads, nondisabled co-workers were felt to give more to the relationship than they received, and in 22% of the dyads, the workers with mental retardation were reported to give more to the relationship than they received.

Emotional Support. With regard to emotional support, respondents were asked to comment on the intimate exchanges that occurred in the dyad. Twenty percent of the respondents (who were primarily informants) said that they did not believe intimate exchanges occurred in the relationship. Fifteen percent of the respondents said that intimate exchanges probably did occur, but they did not know the topics of the exchanges, and 16% of the respondents (again, primarily informants), said they did not know if intimate exchanges occurred. Of the topics mentioned by respondents (primarily members of the dyad) who stated that intimate exchanges and emotional support did occur, three areas were mentioned: (a) problems (cited by 17% of the respondents), (b) romance (10% of the respondents), and (c) family (7%). For example, one nondisabled member of a dyad stated that he gave emotional support and talked about intimate matters, "All the time. He (worker with mental retardation) talks about like problems at home or with his family. He talks to me about those kinds of things. He talks to me, like if he has a problem with another co-worker, he'll come over and I will try to straighten it out. He tends to always find problems and expand on them, and I will try to tell him it's really not all that bad and stuff like that."

Although intimate exchanges and emotional support seemed to occur for some workers with mental retardation, this same type of support was not as prevalent in the relationship for the nondisabled workers. When asked, 31% of the respondents (primarily informants) said they did not know if the nondisabled co-workers received emotional support, and 25% stated that they did not believe that the nondisabled co-worker talked about intimate topics with the worker with mental retardation. Even 36% of the nondisabled co-workers stated that they did not discuss intimate topics with the worker with mental retardation. However, 17% of the nondisabled co-workers stated that they shared intimate details of their families, 4% said they discussed activities done off hours, and 3% stated that they talked about their problems.

All respondents were asked to rate the emotional closeness of the dyad. The majority of the respondents rated the dyad members as being "pretty close" (53%), followed by "just so-so" (31%), real close (14%), and not that close (2%). These percentages reflected the order of emotional closeness reported for all three groups of respondents (i.e., both members of the dyad and the informants).

Informational support. Questions about informational support probed whether or not advice, guidance, and teaching occurred in the relationship. Overall, respondents reported that not much work advice was given but that some advice was given about things that occurred outside work. For example, the nondisabled co-workers in the relationships reported that they gave advice about leisure activities, shopping, and matters related to the home. However, across the dyads, advice and guidance was only given by 57% of nondisabled co-workers.

With 35% of the dyads, workers with mental retardation gave advice and guidance, but this advice was considered to be primarily inspirational or motivational. For example, one nondisabled co-worker reported that the supported employee would say things like, "Keep living. You need to get out and have some fun."

The majority of the nondisabled co-workers (66%) did engage in some teaching, but the teaching was related to work tasks rather than tasks that occurred outside of work. Respondents reported that 32% of the supported employees did teach the nondisabled co-

worker, but the things taught were intangible and related to how to get along in life, teaching such things as the value of "goodness, patience, and responsibility."

Instrumental support. Instrumental support refers to help given in a relationship regarding tangible activities. Fifty-five percent of the respondents reported that the nondisabled co-workers had given help across a variety of activities, including helping in work tasks, fixing lunch, loaning money, giving rides, and buying groceries.

Nearly 50% of the workers with mental retardation said they provided help to their nondisabled co-workers. The majority of help they gave was at work, but some workers had helped with moving and had done some babysitting.

Companionship. When the dyad members were asked if they ever spent time with each other just to relax, over one half of them said they did. Of the nondisabled co-workers, 56% indicated that they liked to relax with the supported employee, and 67% of the supported employees indicated that they liked to relax with the nondisabled co-worker.

Less than half (44%) of the dyads saw each other outside of work. When the dyad members did see each other, they did such activities as eating dinner together, visiting each other at home, and attending movies or sporting events.

When respondents were asked if the relationship had changed over time, the majority of them (64%) reported that it had gotten better rather than staying the same. No one said the relationship had deteriorated. In addition, 97% of the respondents stated that they believed that the relationship would continue in the future. (The 3% of the respondents who indicated otherwise were informants, not dyad members.)

Parting Advice

At the end of the interviews, two additional questions were asked: (a) Could anything make the relationship better? and (b) What advice would you give to other people who want to encourage relationships between people with and without disabilities?

Although a number of respondents offered ideas on ways that the relationship between the dyad members could be improved, the largest majority (39%) said that it was fine the way it

was. Sixteen percent of respondents did not offer any suggestions for improvement, and 10% indicated the relationship might be improved if the dyad members did more things outside of work in order to get to know the worker with mental retardation better. Eight percent of the respondents stated that the relationship was simply a work relationship and "was as good as it could be." A number of nondisabled co-workers in the dyad (7%) indicated that the relationship might be improved if the worker with mental retardation could interact more and talk better. The rest of the ideas regarding improvement consisted of spending more time together (5%), treating the worker with mental retardation less like a child (4%), and a variety of other reasons (11%).

A number of suggestions were given by respondents on ways to encourage relationships between people with and without disabilities. Although 18% of the respondents did not have any concrete ideas, 21% suggested that people just need to talk, be friendly, and act naturally. As one nondisabled co-worker said, "Just talk to her, just consider her like any other person. A person who has feelings and who can do—takes pride in doing a good job and who likes people and enjoys being at work."

Another 15% of the respondents stated that others just needed to take the opportunity or create the opportunity to know people with disabilities. A fourth group of respondents (13%) also talked about the importance of just "treating people nicely, i.e., by being honest, truthful, understanding, courteous, kind, open, and trusting." "I'd say just be yourself, and treat them with courtesy and kindness, just the way you want to be treated, you know?" expressed another nondisabled co-worker.

Finally, a last group of respondents (12%) said it was important to NOT concentrate on the person's disability. A nondisabled co-worker said, "Just treat them as people. Understand that there may be periods of confusion. Just because they have a disability doesn't make them unemotional, or different. I mean, just have open eyes."

Discussion

The purpose of this study was to describe the social relationships that existed between workers with and without mental retardation in integrated work settings. In particular, we believed that knowledge about the work context, qualities of the relationship, and advice to others could help to provide insights about facilitating relationships where none existed.

While this study is not causal, the data suggests that there may be certain contextual and personal factors that may account for the formation of the relationships. For example, a large number of respondents described the work setting as being one that was friendly and relaxed and seemed to promote relationship development among the workers. In addition, over half of the work settings had holiday parties and picnics which also provide opportunities for people to interact with one another. In this type of social climate, workers felt free to talk about topics that were not related to work; opportunities to discuss nonwork-related topics may be the ones that set the context for close social relationships to develop (Chadsey-Rusch et al., 1989; Hagner, 1992).

The data also suggested that supervisors (for the most part) and most of the co-workers were very supportive of the workers with mental retardation. Data from earlier studies (Belcher & Smith, 1994; Shafter et al., 1989) also suggest that close relationships are more likely to develop when positive attitudes towards workers with disabilities are present. It is conceivable that in some work settings, however, there will be some supervisors or co-workers who do not want to interact or associate with workers who have disabilities, or there may be some nondisabled employees who will interact more with supported employees only if they believe them to be vocationally competent (Belcher & Smith, 1994; Butterworth & Strauch, 1994). These findings should not necessarily be viewed as negative and may suggest that it is more important to look at the overall social ecology of the setting. A friendly and relaxed work environment with overall acceptance by most employees may be the critical factor for creating an inviting and open context for people with diverse abilities to learn valued work skills, and to be accepted.

The findings from this study also suggested that relationships are perceived to just "happen" and developed naturally over time. This finding confirms just how difficult it is to objectively describe how close relationships, such as friendships and love develop. However, in about a third of the cases, the nondisabled member of the dyad was reported to be responsible for starting the relationship. Interestingly, these workers were described as having two personality traits that may have predicted their actions; they were described as being concerned about the worker with mental retardation and they were described as being very social people. This information, in conjunction with the demographic finding that one-third of the nondisabled members of the dyads had a family member or a relative with a disability may account for their initial interest in the supported employee. These data suggest that work settings employing individuals who have had a prior relationship or contact with persons with disabilities, along with generally "social" people, may be ones that offer the best chance for relationships to develop.

Both members of the dyad were perceived to gain benefits from the relationship, and the top three benefits cited for both members were similar. Both sets of workers enjoyed talking to one another, appreciated certain personality traits (especially humor), and a some received a friendship from the relationship. The benefits reported in these relationships are not so unusual from benefits reported in the general population (Pogrebin, 1987); that respondents reported some similar benefits for both members of the dyad seems noteworthy.

However, differences in some benefits were also cited. For the supported employees, it was reported that the co-workers in the dyad had created a sense or feeling of belonging or being "part of the gang." For the co-workers, it was reported that they felt good about being able to help the supported employee. This sense of reward may be a precipitating factor in the formation of close social relationships with persons with disabilities. And indeed, this finding has been reported by others (Bogdan & Taylor, 1987; Green Schleien, MacTavish, & Benepe, 1995).

When specific questions were asked about the types of support (emotional, informational, instrumental) given in the dyads, there were two findings that merit discussion. First, many of the informants responding did not know if a specific form of support had been given, and in particular, were unsure whether emotional support occurred at all in the relationship. This finding may suggest that the only people who can really describe a relationship are the people involved in the relationship, especially where intimate exchanges are concerned. Future research is needed to explore the similarities and differences in people's perceptions about relationships.

Second, the data showed that dyad members exchanged informational (e.g., advice) and instrumental (e.g. help on specific tasks) support more frequently than emotional support. In particular, nondisabled co-workers rarely mentioned disclosing intimate details with the supported employees. In a recent exploratory study that looked specifically at the breadth and depth of self disclosure associated with relationship types (e.g., work acquaintance, work friend, and social friend), Ohtake and Chadsey (in press) found that little self-disclosure occurred between nondisabled co-workers and supported employees, and no supported employees were identified as social friends. In the present study, some co-workers did share intimate details, and similar findings have been reported in other studies (e.g., Newton, Olsen, & Horner, 1995), but it is not clear why this occurs in some relationships and not in others. This area of research seems particularly important because the depth and breadth of self-disclosure seems to be associated with friendship formation (Hornstein, & Truesdell, 1988; Planalp, 1993; Planalp & Benson, 1992).

Although just over half of the dyad members indicated that they liked to relax with one another, less than half (44%) indicated that they saw each other outside of the work setting. In the typical work population, it is unknown how many co-workers actually see each other outside of work and regard each other as social friends. Although based on a small sample, Ohtake and Chadsey (in press) reported that 76% of nondisabled co-workers in supported employment settings had at least one social friend. This finding suggests the ease with which

employees develop social friends at work, however, more research is needed to determine how frequently this actually occurs, and the factors involved.

Interestingly, when respondents were asked how the relationship among dyad members could be improved, only 10% of the respondents thought it would be improved if the members saw each other outside of work, or spent more time together (5%), but the largest majority (39%) stated that it was fine the way that it was, and 16% had no suggestions for how the relationship could be improved. In the literature, the primary intervention used to improve social interactions between persons with and without disabilities is by teaching social skills to the person with disabilities (c.f., Chadsey & Shelden, 1998), and indeed, (7%) of the respondents did believe the relationship could be improved if the supported employee could interact more and communicate better. Improving the social skills of supported employees is still an important goal, particularly because depth and breadth of self disclosure seems to lead to more intimate relationships (e.g., Planalp, 1993), but the results from this study suggest that other factors (e.g., context, attitude and personality characteristics of co-workers) may be just as important for creating the opportunity for relationships to develop.

Although this study provides some descriptive information on the close social relationships that formed between supported employees and their co-workers, there are limitations to the study which can be addressed by future research. First, while the social relationships in this study were characterized as being close, only a small percentage (16%) were actually described as friendships. Future research should determine the qualities that characterize friendships in work settings, and should also investigate the contextual and personal factors that may predict such relationships. Second, a semi-structured questionnaire was used in this study to collect the data. In future studies, it may be more informative to collect information on relationships through in-depth interviews and observations. Finally, no normative information was collected regarding co-workers close social relationships with other nondisabled co-workers. For instance, we do not know how or if the construct of "friendship" varies between workplace and

other social settings. This information would be useful to know in order to gain a deeper understanding of how typical friendships form in work settings.

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Table 1

Reasons Workers with Mental Retardation Like Being in the Relationship

Reasons	% Responding
1. Personality characteristics (e.g., easy going; good listener; cool; cares about helping, good worker, understanding)	28%
2. Friendship	16%
3. Someone he/she likes to talk to	12%
4. Part of the gang	8%
5. Joke around; have fun together	8%
6. Common experiences/similar personalities	7%
7. Other	11%
8. Not sure	10%

Table 2

Reasons Workers without Mental Retardation Liked Being in the Relationship

Reasons	% Responding
1. Personality characteristics (e.g., being up, attitude, good listener, sense of humor, giving, understanding, special person)	26%
2. Friendship	16%
3. Somebody he/she likes to talk to	11%
4. Inspiration; makes feel good	9%
5. Joke around; have fun together	9%
6. Emotional support	5%
7. Not sure	13%
8. Other	11%

The Impact of Social Integration Interventions and Job Coaches In Work Settings

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Running Head: JOB COACH INFLUENCE

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Abstract

The purpose of this study was to investigate the effects of two intervention strategies (Contextual and Co-worker) on the social interactions and integration of workers with and without mental retardation. In addition, because all participants received ongoing direct services from their job coaches, the impact of the job coach on the frequencies of interactions was also studied. The results showed that neither intervention had a significant impact on the frequency of interactions, however, it appears that job coach presence seemed to suppress interaction rates. These findings are discussed within the context of designing effective interventions and minimizing job coach involvement. In addition, future research areas are addressed.

The Impact of Social Integration Interventions and Job Coaches In Work Settings

A common refrain heard among personnel providing employment services is that persons with disabilities are not socially integrated into their worksettings. This same theme is also repeated throughout much of the employment literature base (e.g., Chadsey-Rusch & Heal, 1995; Hagner, Butterworth, & Keith, 1995; Wehman & Kregel, 1995). Although problematic, it is surprising that there are so few empirical demonstrations of effective strategies that positively change social integration. The majority of available studies addressing social integration have focused on changing the social skills of individuals with disabilities (e.g., Agran, Fodor-Davis, Moore, & Deer, 1989; Park & Gaylord-Ross, 1989). While there have been successes reported utilizing social skill training procedures, the outcome measures typically used to define success have been narrow in scope, primarily showing increases in the frequencies of particular social behaviors trained (Chadsey-Rusch & O'Reilly, 1992). Certainly, many individuals (both with and without disabilities) could profit from learning more effective social skills, but it is not clear what kind of impact this training has on the larger goal of social integration.

Recently, Smull and Bellamy (1991) and Meyer (1991) argued that the focus of intervention efforts with persons with disabilities should not be on a deficit-remedial model. Instead, they argued that varying levels of supports should be used to allow individuals with disabilities full inclusion into desired environments. A deficit-remedial model hypothesizes that deficits exist in the individual and when these deficits are remediated, positive changes will occur.

The use of a deficit-remedial model has been pervasive in the disability community as a way to institute change. And while this model has merit, it may not always be the best model to use. Historically, many in the field of disability (Chadsey-Rusch & Rusch, 1988; Schalock & Jensen, 1986, Schoggen, 1978) have advocated for using an ecological approach to create change. An ecological approach states that people and environments are interdependent on one another and that adjustment in any social setting is based on a match between the person and

the demands of the environment or a person-environment fit. With this model, discrepancies in the fit between the environment and the person could result in three possible intervention strategies: (a) the skills or behaviors of an individual could be altered, (b) the environment and/or the people in the environment could be changed, or (c) both the individual and the environment could be changed. The goal of the ecological approach is to maximize the congruence or fit between the individual and the environment.

In this study, we utilized an ecological model to change the social interactions and integration of four persons working in businesses located in a small midwestern city. Rather than starting with changing the social behavior of the participants in the study, we studied the effects of changing the environment (Contextual Intervention) and changing the co-workers in the environment (Co-worker Intervention). In addition, because all participants received ongoing direct services from their job coaches, we also studied the impact of the job coach on the frequencies of interactions between workers with and without disabilities. Some (e.g., Bullis et al., 1994; Hagner et al., 1995, Hagner, Rogan, & Murphy, 1992) have argued that job coaches can negatively influence social integration and relationships in work settings because they are not "natural" to the setting. Logically, it is conceivable that job coaches could disrupt the ecology of an environment, but there are few empirical investigations documenting this fact. The purpose of this study, then, was to study the impact of two interventions and the presence of job coaches on the social integration of workers with mental retardation in employment settings.

Method

Participants and Settings

Three female and two male individuals with labels of severe disabilities consented to be participants in this study. They ranged in age from 28 to 43. Four of the participants (Steve, Tammy, Betty, and Al) lived in supported living arrangements, and one participant (Ellen) lived with her mother. All but Steve worked an average of 20-25 hours a week; he worked 7.5 hours.

Ellen and Steve cleaned rooms in a motel. Although they worked at the same setting, Steve did not come to work until later in the morning. Ellen and Steve did not work independently,

but had the ongoing support of a job coach. Steve, who had been on the job for 20 months when the study began, expressed himself verbally by using a limited number of one-two word phrases which were difficult to understand. Ellen, who had been working for seven months when the study began, spoke very softly and signed one-two word phrases. Although Ellen and Steve worked by themselves, or occasionally with another person with disabilities, they had opportunities to interact with nondisabled co-workers when they arrived to work and during lunch and/or breaks.

Tammy and Betty also worked at the same job site (another hotel) but performed different jobs. Tammy cleaned rooms, while Betty performed janitorial and maintenance duties; both women also had the ongoing support of a job coach. Tammy had been employed for seven months and Betty four months. Although Tammy was verbal, she was difficult to understand; Betty rarely initiated communication, but when she did it was in one-word phrases. Both Betty and Tammy had opportunities to interact with nondisabled co-workers when they arrived to work, during lunch and breaks, and occasionally throughout the day.

Al worked at a grocery store and had been on the job for five months. He bagged groceries and stocked shelves and had opportunities for interactions with nondisabled co-workers throughout his shift. Al used verbal language to express himself, frequently initiated communication, and spoke in two-three word phrases, but he was only occasionally understood by his co-workers.

All five participants were initially selected by their adult service agency as being employees who had not worked very long at their particular job site, and who would benefit from increased interactions with their co-workers. Once they were identified, all of the individuals were asked if they wanted to participate in a study where they would have opportunities to talk to their co-workers and maybe develop friendships. In addition, they were told that they could withdraw from the study at any time.

Dependent Variables

Data were collected on a number of measures throughout the study. Repeated measures of social interactions were collected three times a week for each participant across two social contexts: arrival to work and break or lunch. In addition, two global measures of integration and co-worker involvement were collected during baseline and at the end of the study. Two other measures, the Worker Loneliness Questionnaire (Chadsey-Rusch, 1991) and the Lifestyle Satisfaction Scale (Heal, Harner, Novak-Amado, & Chadsey-Rusch, 1994) were also administered during baseline, but are not reported due to the inability of participants to respond to the items.

Social Interactions. A variety of social interaction measures were collected on the target participants, co-workers, and job coaches. Data were collected 3 times a week for 10 minutes each using a 10-S partial interval time-sampling. When an interaction occurred, it was coded as being an (a) initiation which was defined as verbal or nonverbal behavior (e.g., pointing) that began a conversation or changed a topic or occurred after a 3-S pause or (b) a response which was defined as verbal or nonverbal behavior that followed an initiation within a 3-S latency period. In addition, observers recorded whether interactions were task-related (i.e., related to job tasks) or nontask-related (i.e., unrelated to job duties). Finally, observers recorded the quality of interactions noting if they were positive or negative.

Employment Integration Index. The Employment Integration Index (Lagomarcino & DeStefano, 1990) provides an ecological measure of integration across physical, social, and organizational dimensions. The instrument has an interrater reliability of .93 and test-retest reliability of .98. This instrument was completed by the target participants' job coaches during baseline and at the end of the study.

Co-worker Involvement Index. The Co-worker Involvement Index (Rusch, Hughes, McNair, & Johnson, 1989) describes the relationships experienced by workers with and without disabilities according to their levels of acceptance and friendship. This instrument, which was

also completed by the target participants' job coaches, has a test-retest reliability of .90 and an interrater reliability of .80.

Observer Training and Interrater Agreement

Three women who were naive to the purpose of the study were hired and trained to collect the social interaction data. Before data collection began, the observers studied the observation and recording manual, passed a test on the manual with a score of 90% or above, achieved interrater reliability of 80% on the codes on a training videotape, and achieved agreement levels of 80% and above in two in vivo observations.

Once data collection began, interrater agreement sessions were collected across 24% of all target participants in each social context (i.e., arrival and break/lunch). During agreement sessions, a second observer simultaneously but independently recorded the social interaction behaviors. Agreement was calculated on a point-by-point basis by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. Agreement scores across all codes ranged from 82% to 96% with a mean score of 90%.

Design

A multiple-baseline design across participants was used in this study. After a stable baseline occurred, the Contextual Intervention was introduced to Ellen and then Betty. The Co-worker Intervention was applied to Al, Tammy, and Betty in a time-lagged fashion. Intervention procedures were not used with Steve because his work schedule was erratic and his hours were shorter than the other four participants. Steve's baseline data are reported here, however, for comparison purposes.

Procedures

Baseline. During Baseline, target participants were observed for 10 minutes during arrival to work and lunch/break. Observers were trained to observe from a distance of 3 to 6 m from the participants. Further observers were instructed not to interact with the employees in the work settings. During baseline sessions, no intervention procedures were applied.

Contextual Intervention. Prior to the implementation of the Contextual Intervention, work culture information was gathered from each participants' job coach and the most popular co-worker on the job site. The most popular co-worker was selected from ratings obtained on the Co-worker Rating Scale which was designed for the study. Co-workers rated each other on how much they liked to work with each other, eat lunch and take breaks with each other, talk with each other during work, and see each other outside work.

A specially designed interview form was also designed for this study in order to gather information about the culture of the work setting in relation to such things as social customs, gathering places, celebrations, work space, and company image (Hagner, 1994). The most popular co-worker identified in each setting was asked to describe the work setting in relation to questions about the workplace culture; job coaches responded to similar questions but in relation to the participant's behavior. For example, one of the questions about break or lunch asks if people at work sit in small groups or whether everyone sits together. Job coaches were asked a similar question but in relationship to the participants (e.g., does Ellen join small groups of co-workers? Does she join specific groups or does she sit with everyone?). After the questionnaires were completed, experimenters also briefly observed the work setting during arrival, breaks/lunches, departure, and a work period to gather any additional information related to workplace culture and to validate the information expressed during the interviews by the job coach and co-worker.

Once workplace culture information was collected, the information generated by the co-worker about the culture of the work setting was compared to information provided by job coaches about participants. Discrepancies were noted and a list of possible contextual changes that could result in the participants being more a part of the work culture were identified. Once this list was generated, project personnel sat down with each of the job coaches to identify contextual changes that might be feasible, including those that would be the least disruptive to the work setting. Once a list of possible contextual changes were identified, the participants were asked if they would be willing to be involved in these changes.

Initially, 13 different contextual changes were suggested for Ellen. Of these changes, the job coach and Ellen agreed that 9 would be possible and not too disruptive. For example, one change suggested from the discrepancy analysis was that Ellen eat lunch with her co-workers without disabilities rather than eat only with co-workers with disabilities. This change was not feasible because all the co-workers without disabilities were smokers and ate in the laundry room. Ellen did not smoke, and wanted to eat her lunch in a smoke-free room.

Of Ellen's possible nine contextual changes, two were identified as daily changes; the other seven could be implemented on a periodic basis. Although some of the changes involved Ellen exhibiting new behaviors (e.g., petting the desk manager's dog or giving it a treat), these behaviors were already in Ellen's repertoire and just needed prompting. Table 1 lists Ellen's contextual changes.

Insert Table 1 about here

For Betty, 20 interventions were thought possible and all were deemed acceptable and feasible. Betty's contextual changes are listed in Table 2.

Insert Table 2 here

Ellen's and Betty's job coaches were asked to record whenever a Contextual Intervention occurred. For Ellen, the job coach recorded that 151 contextual changes were implemented over a 3 month period. Of these contextual changes, 63% of them occurred when Ellen was prompted to say "Hi" and "Bye" to co-workers during arrival and departure from work.

For Betty, 90 changes were recorded as occurring during a 1 month period. Of these changes, 53% involved changes which occurred upon arriving to work.

Co-worker Intervention. The Co-worker Intervention was based primarily on procedures devised by Haring and Breen (1992). This procedure used co-workers as a primary source for suggestions and ideas on ways that the target participants could be included in the worksite.

At Al's, Betty's, and Tammy's worksite, two to three co-workers were asked to participate in the intervention. Selection was based on their willingness to participate, positive rankings on the Co-worker Rating Scale, and their nomination by job coaches and persons who worked closely with and had positive interactions with the participant. Each co-worker received $50.00 for participating in the intervention.

Initially, a meeting was held with the co-workers, participant, and job coach to explain: (a) how the intervention would work, (b) the benefits, (c) when the intervention would occur, and (d) the commitment required. Co-workers were told that they probably had the best ideas on how to include someone at work because of their daily involvement at work. They also were told that their ideas would be solicited at short, weekly meetings and would be agreed upon by everyone before they were implemented. Possible benefits included new knowledge about disabilities, the opportunity to act as an advocate, and the possibility of developing new social relationships. Co-workers learned more about the participant at the initial meeting, and then were asked for their ideas regarding ways to facilitate the social inclusion of the participant. Once ideas were generated, the group decided which were feasible to implement, who would be responsible for the intervention, and who would record if the intervention was implemented.

After the initial meeting, the groups met once per week for 3-5 weeks. During these meetings, the group discussed the progress and efficacy of each intervention, problems, and additional strategies for inclusion. Project staff served as facilitators for the meetings and were trained with specific guidelines developed for the facilitators.

All of the interventions generated by the co-workers involved the selection of topics of conversation the co-workers could initiate to the participants. Within each topic category, specific questions were written down and distributed to each co-worker. For example, six topic categories were generated for Tammy (work, television, her dog, bowling, rock & roll, what

Tammy did the night before). Within the topic of "television," for example, co-workers could ask Tammy what she watched on TV the night before or what was good on TV that day.

Although co-workers were asked to record the number of times they asked the participants questions, it was difficult to determine how frequently the questions actually occurred because the co-workers did not always turn in their data sheets at the weekly meetings. Al participated in the Co-worker Intervention the longest, and over a five-week period, three co-workers reported they asked a total of 62 questions that were primarily related to work topics, even though Al was also interested in swimming, fishing, his father, motorcycles, and boating.

Results

Figure 1 displays the total frequency of participant and co-worker interactions (initiations and responses combined) from the lunch/break context. As can be seen, the total number of interactions did not change from baseline levels for any one of the participants or co-workers during either the Contextual or Co-worker Interventions. The same type of results were also found in the arrival context (this graph is not included).

Insert Figure 1 about here

It is useful to interpret these findings within the context of job coach interactions and involvement. Figure 2 displays the same information depicted in Figure 1, but also includes the interactions between the job coach and the participant. As can be seen, job coach interactions were frequent, averaging 8.57 (SD = 6.88) interactions per participant per session.

Insert Figure 2 about here

Additional analysis of this data sheds further light on the issue of job coach involvement. When job coaches were "involved" or "present" during observations, but not involved (interacting) with the participant, the average number of interactions between the participants

and the co-workers were low. The mean number of interactions that occurred when job coaches were involved was 4.24 (*SD* = 5.13), and the mean number when they were present, but not involved was 2.58 (*SD* = 3.80). This is in contrast to the mean number of interactions that occurred between participants and co-workers when job coaches were not present during the observation period; the mean number of interactions were 13.21 (*SD* = 11.13).

The presence of job coaches also appeared to influence the opportunities for interaction during baseline and after intervention (i.e. Contextual and Co-worker Interventions combined). Table 5 shows that after intervention, there were more opportunities for co-workers to interact with participants when job coaches were not involved and not present. Opportunities for interaction did not change from baseline to intervention when job coaches were involved.

Insert Table 3 about here

Although the frequency of interactions did not change from baseline to intervention conditions, it does appear that the intervention conditions may have had an effect on the type of interactions that were displayed. Inspection of Table 3 suggests that for all four participants, there were higher levels of nontask interactions than task-related interactions displayed during the intervention conditions (although both types of interactions did show a positive gain). For co-workers, the findings were a bit more mixed. For Ellen, co-workers engaged in more nontask interactions and fewer task-related interactions after intervention. With Tammy, the frequency of both type of interactions declined, but with Betty, both types of interactions increased with a greater change evident for nontask interactions. For Al, there was a slight decrease in nontask interactions and a slight increase in task-related interactions. Steve, and his co-workers who did not participate in intervention, showed low levels of both types of interactions throughout the course of the study.

Insert Table 3 about here

Table 4 shows the results from the pre-post measures on the Employment Integration Index and the Co-worker Involvement Scale. The maximum score that could be obtained on the Employment Integration Index is 46. As can be seen, none of the participants achieved this score, and only two (Al and Tammy) had higher scores after participating in the intervention condition.

The maximum score on the Co-worker Involvement Index is 18. Although no participants achieved this score, Tammy, Betty, and Al showed higher scores after participating in the intervention conditions.

Insert Table 4 about here

Discussion

The purpose of this study was to determine the impact of two interventions—Contextual and Co-worker—on the social integration of four workers with disabilities employed in community businesses. A second purpose was to determine the impact of the job coach on the frequency of social interactions between workers with and without disabilities. This study was believed to be important because it is one of the first to investigate the effectiveness of an intervention that did not first seek to change the social behavior of a person with disabilities, but instead, sought to change the work environment and others in the work environment (i.e., co-workers). In addition, there are few studies available that have demonstrated the impact of the job coach on the social interactions between people with and without disabilities.

The results from the study were mixed. First, it did not appear that either the Contextual or Co-worker Interventions were effective in increasing the social interactions between target participants and their co-workers. There are a number of possible explanations for this finding.

Foremost, it appears that job coach involvement had an impact on social interactions. That is, when job coaches were present, interactions were low, and when they were absent, interactions were higher. In addition, job coach presence also seemed to influence the opportunities for interactions. There were likely to be more opportunities for interactions if job coaches were not involved or not present, particularly when the intervention procedures were being implemented.

The finding that job coaches can negatively influence the social integration of workers with disabilities has been suggested by others (e.g., Bullis et al., 1994; Hagner et al., 1995), and the results from this study supports these suggestions. This finding also supports the call for job coaches to assume new roles in the workplace. As suggested by Hagner and others (e.g., Hagner et al., 1992; Wehman & Kregel, 1995), it may be more appropriate for job coaches to assume the role of a consultant, thereby relying more on the naturally occurring supports in work settings (e.g., co-workers, supervisors) to integrate workers with disabilities. Research is needed, however, to demonstrate that consulting job coaches and naturally occurring supports can lead to positive social integration outcomes.

In many respects, the interventions tried in this investigation could be viewed as ones being "more natural" to a work setting than other interventions (e.g., job coaches teaching workers with disabilities new social skills). Although the field has yet to reach consensus on a definition of natural supports (Hagner, 1994), creating natural opportunities for workers to participate more in the culture of the work setting and asking co-workers for suggestions on ways workers with disabilities can be more included seems to have intuitive appeal. It could be, as is suggested by this study, that job coach presence is so influential that it dampens the benefits of social integration interventions. It is also possible, that the interventions tried in this study are not effective. Research is needed to disentangle the interaction between job coaches and these interventions.

It is also conceivable that other explanations are responsible for the findings in this study. For example, neither interventions were implemented for a long period of time, and since it

takes time for close social relationships to develop (Duck, 1991), it is possible that the duration of the intervention affects outcomes.

In addition, although a variety of contextual interventions were suggested by our analysis and a number of different topics of conversation were identified through the Co-worker Intervention, only a small set of identified interventions were actually implemented. Further research is needed to determine the effects implementing all identified interventions for a longer period of time.

As has been suggested by others (e.g., Chadsey-Rusch, 1992; Mank & Buckley, 1989), the measurement of social integration is imprecise and problematic. In this study, during the Co-worker Intervention, co-workers reported anecdotally that they talked more with the target participants, but that these conversations most often occurred throughout the workday, rather than during arrival or breaktimes. Conducting direct observation studies of social interactions are expensive in time and money and few researchers have the luxury of observing participants all day long. While tape recording devices have been used in some studies (e.g., Haring, Roger, Breen, & Gaylord-Ross, 1986), the quality and intelligibility of tapes in many work settings can be compromised due to background noise. In addition, tape recorders are not useful if workers use augmentative means to communicate. Research that identifies measurement procedures which accurately sample social interactions in work settings are sorely needed.

One of the weaknesses of this study was that there were no criterion measures of the frequency of interactions of workers without disabilities. In future investigations of this type, it would be helpful to have a measure of a typical interactions so that outcome effects could be judged against a relevant social comparison (Kazdin & Matson, 1981).

Although it appeared from this study that job coaches influenced the frequency of interactions between workers with and without disabilities, it is encouraging to note that there were some positive findings. It appeared that the average frequency of nontask interactions increased from baseline to intervention. Rusch, Chadsey-Rusch, and Johnson (1990) have speculated that nontask interactions may be more important to the formation of social

relationships than task-related interactions. Also, scores on the Co-worker Involvement Index increased after intervention for three of the four participants. This finding was encouraging because this instrument measures the specific involvement of co-workers compared to the broader measure of integration for which there was little change found. As has been suggested by Chadsey-Rusch & Heal (1995) the measurement of social integration in work and community settings is complex and requires multiple measures.

The results from this study raise important questions related to the continuing need to identify social integration interventions that are effective. This study offered an ecological approach that bypassed a deficit-remedial model for designing social integration interventions. Although this intervention approach has appeal, its effectiveness warrants additional study because of the finding that suggested job coaches may have deleterious effects on interventions designed to improve social interactions between workers with and without disabilities.

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Table 1

Contextual Interventions for Ellen

Arrival Interventions

1) Ask E to pet Virginia's dog, or give it a treat or dog bone.

2) Prompt E to wave "hi" when she gets off the bus, and anytime before she goes in the laundry room. (Daily)

Lunch Interventions

1) Have E walk through the laundry room (enter W door, exit E door) when she goes to refrigerator to get lunch.

2) If others are going out to lunch, see if E could join them.

3) When monthly employee lunch occurs, have E sit with other co-workers (not by self).

Departure Interventions

1) Prompt E to say good-bye when leaving. (Daily)

General Interventions

1) Send E on errands to the laundry room (re-supply cart) or to the front desk.

2) Call E's mom and see if there's something E can bring to work to share (such as a picture, or similar item) with Judy, or other co-workers.

3) Have E bring candy, or other food to share with co-workers.

Table 2

Contextual Interventions for Betty

Arrival Interventions

1) B Arrives at 7:45, gets pop, sits with other co-workers for a short break before she goes to work (reduce job coach presence).
2) Direct B to say "Hi" to Liz when she clocks in.
3) Before entering a situation where other co-workers are present, direct B to say "Hello".
4) Before entering a situation where other co-workers are present, suggest a topic of conversation to B (for example, "[co-worker's name] would like to hear what you did last night).
5) Casually mention to a co-worker what B did last night or over the weekend, an interest, etc.
6) Have B bring food to share at least one time every two weeks.

Break Interventions

1) B takes a break at 10:00.
2) Allow B to sit with other co-workers when she takes a break (reduce job coach presence).
3) Before entering a situation where other co-workers are present, direct B to say "Hello".
4) Before entering a situation where other co-workers are present, suggest a topic of conversation to B (for example, "[co-worker's name] would like to hear what you did last night).
5) Casually mention to a co-worker what B did last night or over the weekend, an interest, etc.

Lunch Interventions

1) Allow B to sit with other co-workers when she eats lunch (reduce job coach presence).
2) Before entering a situation where other co-workers are present, direct B to say "Hello".
3) Before entering a situation where other co-workers are present, suggest a topic of conversation to B (for example, "[co-worker's name] would like to hear what you did last night).
4) Casually mention to a co-worker what B did last night or over the weekend, an interest, etc.

Departure Interventions

1) Prompt B to say good-bye when leaving.
2) Before entering a situation where other co-workers are present, suggest a topic of conversation to B (for example, "[co-worker's name] would like to hear what you did last night).
3) Casually mention to a co-worker what B did last night or over the weekend, an interest, etc.

General Interventions

1) Introduce B to one of her co-workers.
2) Teach B some Spanish greetings, good bye's, and other simple social words.

Table 3

Average Frequency of Task and Nontask Interactions by Co-workers and Target Participants Before and After Intervention

Participants	Task			Nontask		
	Pre	Post	Total Difference	Pre	Post	Total Difference
Ellen	0.11	0.21	+.10	0.05	0.35	+.30
Co-workers	1.10	0.33	-.77	0.16	0.64	+.48
Tammy	0.23	1.05	+.82	1.03	1.90	+.87
Co-workers	0.39	0.25	-.14	1.44	1.00	-.44
Betty	0.09	0.86	+.77	0.30	1.92	+1.62
Co-workers	0.09	0.30	+.21	0.61	2.11	+1.50
Al	0.46	0.63	+.17	4.70	6.12	+1.42
Co-workers	0.54	1.11	+.57	4.88	4.86	-.02
Steve	0.61			0.97		
Co-workers	0.55			0.42		
Total						
Participants	.89	2.75	+1.86	6.08	10.29	+4.21
Co-workers	2.12	1.99	-0.13	7.09	8.61	+1.52

Table 4

Employment Integration and Co-worker Involvement Scores Before and After Intervention

Participants	Integration[1]		Involvement[2]	
	Pre	Post	Pre	Post
Ellen	25	20	7	6
Tammy	32	33	10	12
Betty	20	17	9	11
Al	30	36	12	15
Steve	21	16	6	5

[1]Maximum score if 46
[2]Maximum score is 18

Table 5

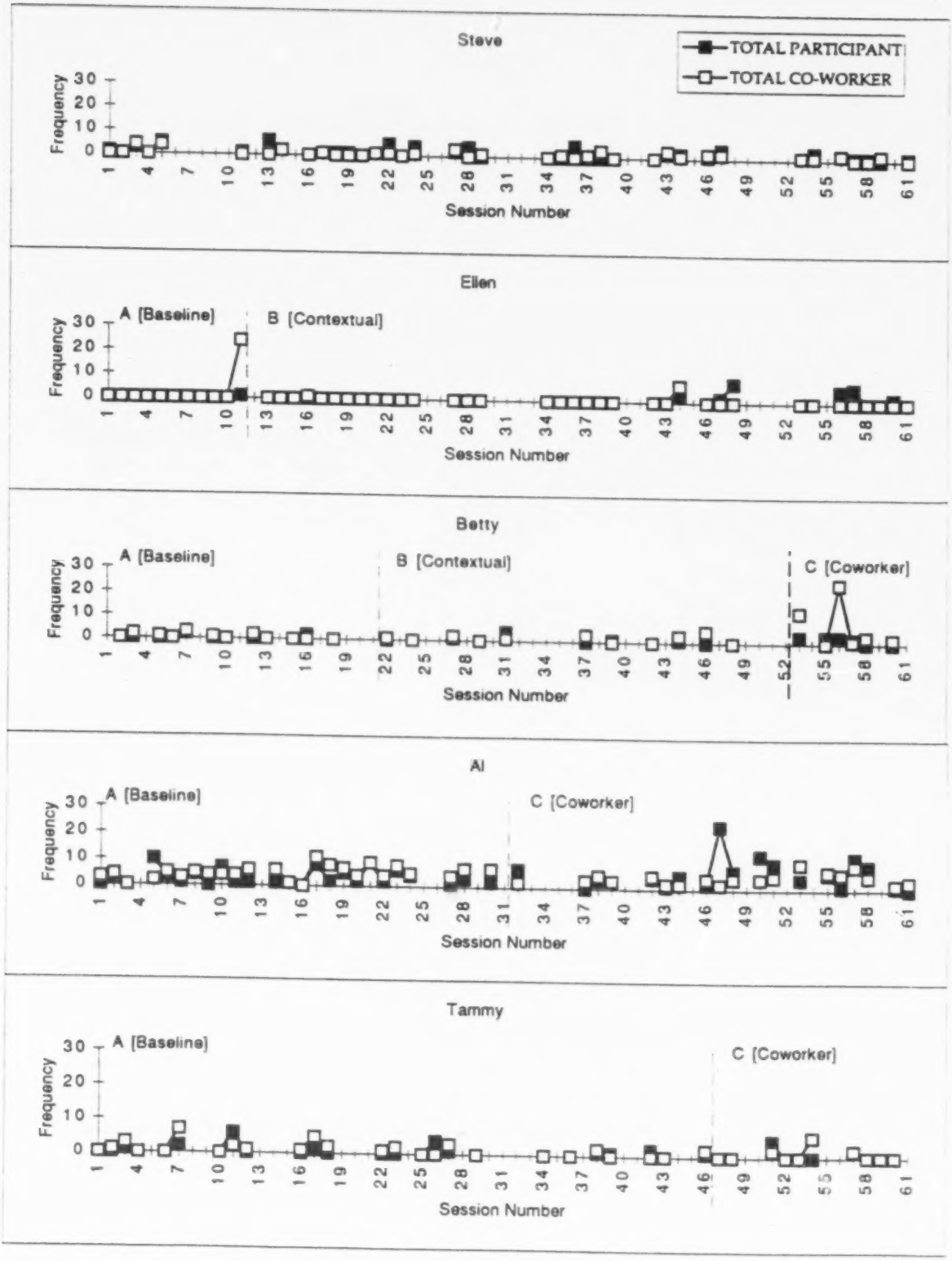
Average Percent of Time Per Observation When There Was an Opportunity to Interact During Baseline and After Intervention by Job Coach Involvement

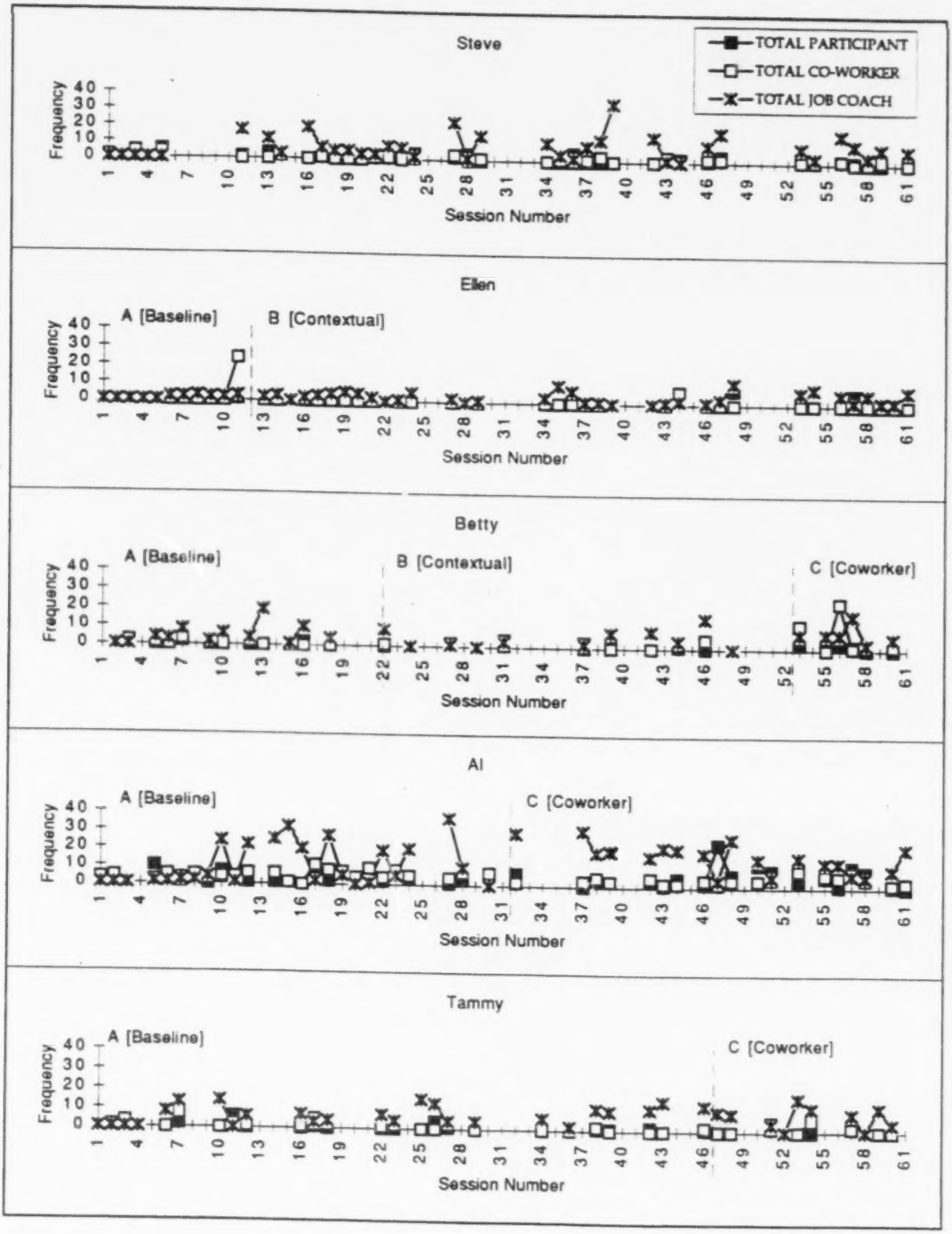
Condition	Job Coach Involvement					
	Involved		Not Involved		Not Present	
	M	*SD*	*M*	*SD*	*M*	*SD*
Baseline	51.0	(21.45)	36.0	(22.44)	53.0	(22.02)
Intervention	51.0	(21.26)	55.0	(29.58)	78.0	(18.62)

Figure Captions

Figure 1. Participant and co-worker interactions during lunch and break.

Figure 2. Participant, co-worker, and job coach interactions during lunch and break.


Steve
TOTAL PARTICIPANT
TOTAL CO-WORKER
Frequency
Session Number
Ellen
A [Baseline]
B [Contextual]
Frequency
Session Number
Betty
A [Baseline]
B [Contextual]
C [Coworker]
Frequency
Session Number
Al
A [Baseline]
C [Coworker]
Frequency
Session Number
Tammy
A [Baseline]
C [Coworker]
Frequency
Session Number


Steve
TOTAL PARTICIPANT
TOTAL CO-WORKER
TOTAL JOB COACH
Frequency
Session Number
Ellen
A [Baseline]
B [Contextual]
Frequency
Session Number
Betty
A [Baseline]
B [Contextual]
C [Coworker]
Frequency
Session Number
Al
A [Baseline]
C [Coworker]
Frequency
Session Number
Tammy
A [Baseline]
C [Coworker]
Frequency
Session Number

Personal and Environmental Characteristics that Predict Successful Social Integration for Employees With Disabilities

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Running Head: PERSONAL AND ENVIRONMENTAL CHARACTERISTICS

Abstract

Although social integration and inclusion are important outcomes associated with supported employment, both outcomes are very complex and it is unlikely that one simple solution or intervention can cause them to occur. Drawing upon ecological theory, this study investigated the impact of personal and environmental characteristics on the social integration of 82 supported employees according to judgements reported by their employment training specialists. A national sample of 55 employment training specialists were asked to respond to a questionnaire that considered five categories of ecological variables that could affect social integration: (a) Agency Characteristics, (b) Supported Employee Characteristics, (c) Service Provider Characteristics, (d) Workplace Characteristics, and (e) Interventions. The results of the study showed that all but Agency characteristics predicted at least one of four social integration outcomes. These results were discussed in relationship to theory and practice, and future research areas were highlighted.

Personal and Environmental Characteristics that Predict Successful Social Integration

Throughout the history of human kind, there have always been individuals and groups who have not been an integral part of communities. Some have chosen freely not to belong, but others have had little choice and have been excluded based on factors beyond their control, such as gender, skin color, or intelligence. When one feels like an outsider in a community, but desires admittance, the question that is frequently asked is, "How can this be accomplished?" Throughout our history, a variety of approaches have been tried in order to integrate or include people in society. Solutions have ranged in part from wars (e.g., the Civil War), to lawsuits (Brown V. Board of Education), to legislation (Individuals With Disabilities Act, P.L. 94-142). But even with these powerful and far reaching events, groups are still excluded.

Persons with mental retardation have had a history of being socially excluded, although physical integration has been accomplished for many in the schools, and in community and employment settings (Haring, 1991). Physical integration, although necessary, is not a sufficient condition for social integration (Haring, 1991). Consequently, researchers have worked diligently over the years to discover information and strategies that would facilitate social integration and inclusion (e.g., Haring & Breen, 1992; Park & Gaylord-Ross, 1989).

Social integration is particularly relevant in employment contexts. As noted by Stewart (1985), one's work setting is ones most important social context after one's immediate family. Considering that most employees spend 20-40 hours a week at work, it is quite possible that social exclusion could impair their functioning and development as workers. How then to counter social exclusion? A number of researchers have pondered this question and have suggested several promising strategies that have ranged from designing programs to change the social skills of the person with mental retardation, to working with co-workers and using other forms of natural support (see Chadsey & Shelden, 1998, for a review). Yet, none of these strategies seem definitive in assuring social integration.

Clearly, social integration is a complex phenomenon, and it is unlikely that one simple solution or intervention can cause significant change for everyone who has been socially excluded. Drawing upon past research, Chadsey and Shelden (1998) recommended that an ecological approach continue to be used to study social integration. With this approach, social integration is examined from a broad view that recognizes that people and environments influence one another. If interventionists tried to change the social skills of a worker with mental retardation (or supported employee), but did not consider the potential impact of that change on co-workers, supervisors, and the different social contexts of the work settings (e.g., lunch, birthday parties), it is quite likely that incongruence would result (Thurman, 1977). It seems plausible that numerous variables need to be considered a priori in order for effective interventions to be designed.

Perhaps the challenge for effecting social integration hinges first on asking the question about which variables can make a difference. Since ecological theory states that people and environments influence one another then a first step would be to discern which person and environmental characteristics could have an impact on social integration. This study was designed to take that first step. A survey was sent to a national sample of employment training specialists who had either achieved successful or unsuccessful social integration for supported employees. The employment training specialists were asked to respond to a series of questions that considered five categories of ecological variables that could impact social integration: (a) Agency Characteristics, (b) Supported Employee Characteristics, (c) Service Provider Characteristics, (d) Workplace Characteristics, and (e) Intervention Strategies. The purpose of this study was to determine which personal and environmental characteristics predict successful social integration.

Methods

Participants

Personnel in state rehabilitation offices in all 50 states and 6 territories, including separate rehabilitation agencies serving individuals who are blind, were contacted and asked to nominate

up to five programs in their states that were actively promoting social integration between workers with and without disabilities. Of the 81 vocational rehabilitation agencies contacted, 61 (74%) responded. Of the 61 respondents, 55 (67%) elected to participate in the research and nominated 240 programs actively promoting social integration. Of the 240 programs nominated, 78 (33%) provided usable examples of supported employees working in integrated work sites. Programs that chose not to respond were those which primarily served persons with mental illness or other persons without mental retardation. Nominated programs which did not provide examples did so for several different reasons: (a) they did not return telephone calls, (b) they stated they were too busy to participate, or (c) they did not meet the participant criteria. The final list of participating programs represented 31 states and all six regions identified through Regional Resource Dissemination Centers across the United States.

Participating programs were asked to provide examples of two types of employees: (a) those who had been successfully integrated into work settings and (b) those who had been unsuccessful in achieving social integration. Agencies could nominate no more than two successful and unsuccessful examples, for a total of four examples. Participants were asked to provide examples of either successful or unsuccessful efforts or both in order to reduce bias in responding. Examples were considered usable if they met the following three criteria: (a) the supported employee was 35 years old or younger, (b) was identified as having mental retardation, and (c) had opportunities to interact with co-workers without disabilities.

Supported employee participants. Data were collected on 82 supported employees; 46 of whom were judged to be successfully socially integrated and 36 were judged to be unsuccessful. The mean IQ of the successful group was 57.74 (SD = 13.11), and the mean age was 26.64 (SD = 4.88). The successful group included 26 males and 20 females, and the majority of supported employees in this group were Euro-American (74%), followed by African-American (17%). In the unsuccessful group, the mean IQ was 63.78 (SD = 10.16), and the mean age was 25.77 (SD = 4.31). This group included 20 males and 16 females, and the majority of these individuals were Euro-American (89%), followed by African-American (8%).

The majority of the supported employees used verbal speech to communicate with others (97% of the successful cases and 100% of the unsuccessful cases). Job positions were similar between the two groups, with the majority of the employees working in food service, manufacturing, retail, and service industries. The successful cases had been employed in their jobs an average of two years, while the unsuccessful cases had been employed in their jobs an average of one year. The successful cases earned an average of $5.00 per hour on the job, and the unsuccessful cases earned an average of $4.60 per hour. Successful cases were most likely to work 16-25 hours per week (35%), followed by 26-35 hours (28%) and over 35 hours (22%). The unsuccessful cases were also most likely to work 16-25 hours per week (41%), followed by 26-35 hours (16%) and over 35 hours (16%).

Survey respondents. The survey respondents were 55 employment training specialists who worked with the supported employees. The majority of the respondents were females (70%), Euro-American (83%), and had either bachelor's degrees (53%) or some college experience (19%). Most of the respondents were between 30 and 39 years of age (42%) or between 20 and 29 years of age (31%). For successful cases, 48% of respondents had been working with the employee for more than two years, and 37% had been working with the employee for 1 to 2 years. For the unsuccessful cases, 33% of the respondents had been working with the employee for 7 to 12 months, followed by 25% who had been working with the employee for more than 2 years and 22% who had been working with the employee for 1 to 2 years.

Instrument and Procedures

The instrument for this study was based on the ecological approach explained above and the hypothesis that five areas related to personal and environmental characteristics might have an impact on integration. Literature related to these areas was reviewed and survey questions were generated for each area. The five areas included on the survey contained questions related to: (a) Agency Characteristics, (b) Supported Employee Characteristics, (c) Service Provider Characteristics, (d) Workplace Characteristics, and (e) Interventions and Procedures. The questions from these five sections constituted the pool of possible predictor variables.

The Agency Characteristics section contained eight items related to the types of services provided by the agency, the length of time in operation, number of employees, and number of individuals receiving services. All items in this section were forced choice items. The Supported Employee Characteristics section contained 23 items, both forced choice and open. Questions related to demographic information, employment and support history, and social and communication skills. The Service Provider Characteristics section contained 15 forced-choice items related to demographic information, professional and educational history, and professional development activities. The Workplace Characteristics section included 23 items, both forced choice and open. Questions were related to the type of business and number of employees, history of hiring individuals with disabilities, and nature of interactions among co-workers and supervisors. The Interventions and Procedures Section contained 27 items. The first 16 items were types of interventions identified in Chadsey-Rusch and Heal (1995). Additional forced choice questions targeted additional information about when, where, and how interventions had been implemented. The last four questions were open-ended and related to specific intervention materials, procedures, evaluation procedures, and problems encountered while implementing the interventions.

The sixth section of the survey was related to integration outcomes and constituted the dependent variables. The items related to the social integration outcomes came from a conceptual framework proposed by Chadsey-Rusch and Heal (1995) which was further validated by a factor analytic model. In this model, integration is comprised of four components: (a) Social Participation, which describes an individual's participation in social activities at work; (b) Workplace Acceptance, which describes how co-workers accept a person as a fellow worker or colleague in the work culture: (c) Personal Acceptance, which describes co-workers' feelings of wanting to get to know a person better or develop a personal or closer relationship with him or her; and (d) Feelings of Social Support, which describes how workers feel about their social integration and relationships with others. In the outcome section of the survey, respondents were asked to indicate whether or not an outcome had occurred and to

identify evidence for the outcome, i.e., through direct observation or through reports from others. Respondents could also note if the item was not applicable to the supported employee.

Surveys were completed by employment training specialists who had implemented the social integration interventions. Respondents' examples were prescreened by telephone to see that they met the three criteria stated earlier. Respondents' verbal commitment to participate was requested at that time, and surveys were mailed to them. Despite the verbal commitment, only 69% of the surveys distributed were received. For those surveys returned, follow-up telephone calls were made to each respondent to complete or clarify information (e.g., obtain more detail about intervention procedures). Respondents received $50.00 for each survey completed.

Data Analysis

Predictor variables. The predictor variables for this study were based on the five conceptual categories upon which the questionnaire was conceived (i.e., Agency, Supported Employee, Service Provider, and Workplace Characteristics and Interventions). Although the items in these categories were based on literature and therefore had content validity, we used conventional item analysis (or Cronbach's Alpha) to determine the conceptual integrity and internal consistency of the subscales. After conducting this analysis, all items within each block that had a negative correlation or a correlation below 0.2 were dropped. This analysis resulted in 1 item being dropped from Supported Employee Characteristics, 11 items being dropped from Agency Characteristics, and 12 and 2 items being dropped from Workplace Characteristics and Interventions, respectfully. With the Service Provider Characteristics, 3 items were dropped but the remaining items still did not produce a reliably consistent scale (Cronbach's Coefficient Alpha = .03).

Tables 1, 2, 3, and 4 report the internal (alpha) consistency reliabilities of the predictor blocks used in the regression analysis for Supported Employee Characteristics, Agency Characteristics, Workplace Characteristics, and Interventions. Each of these tables also contain the individual items in the block and the correlation coefficient of each item with the total score

for its variable. The alpha scores for the blocks ranged from 0.60 for Agency Characteristics to 0.79 for Interventions showing good reliability for the scales.

Insert Tables 1, 2, 3, and 4 about here

Although the predictor block of Service Provider Characteristics did not have good internal consistency, two items were used as predictor blocks: (a) Employment Training Specialist's Positive Feelings About Supported Employee (Block 3) and (b) Do you feel your training was adequate? (Block 4). These two items were retained because of their substantive importance.

Dependent variable scores. Four dependent variables reflecting social integration outcome measures were used in the model: Social Participation, Workplace Acceptance, Personal Acceptance, and Feelings of Social Support. Using responses to the outcome questions (i.e., the sixth section of the survey), separate scores were calculated for each outcome measure. Each of the four score totals equalled the number of items within an outcome area that the respondent reported as having occurred. In other words, if the respondent indicated that an item occurred and this was evidenced by either direct observation or reports from others, a score of "1" was tallied for that item. The total number of tallies for an outcome area constituted the score for that dependent variable (e.g., Social Participation).

Regression analysis. The relationship between the predictor and outcome variables was explored using a blockwise regression analysis. For each of the four outcome areas, successive blocks of predictor variables corresponding to the ecological dimensions of the survey sections were entered into the regression equation successively in order to determine the amount of variance that was accounted for uniquely by each ordered block. Subsequent F tests were computed to determine the statistical significance of each block's predictive value, and dependent t-tests were used to detect differences between successful and unsuccessful groups on individual variables within the blocks.

Blocks were entered into the model in the following order: Supported Employee Characteristics, Agency Characteristics, Employment Training Specialist's Positive Feelings About Supported Employee, Adequacy of Training, Workplace Characteristics, and Interventions. Blocks were entered in this order so as to control the effects of personal variables in the earlier blocks with the later blocks being those that were more amenable to change (i.e., interventions).

Results

Differences Between Successful and Unsuccessful Cases

Prior to running the regression analysis, dependent t-tests were conducted to determine if there were significant differences between the successful and unsuccessful cases on the four dependent variables. Significant differences were found on all four dependent variables ($p<.001$), with the successful cases having higher mean scores than the unsuccessful cases. Mean outcome scores are presented in Table 5.

Insert Table 5 about here

Predictors of Outcome Variables

Social participation. The overall regression model accounted for 25% of the variance in the Social Participation Outcome. Of the six predictor blocks, three were significant ordered predictors: (a) Supported Employee Characteristics, $F(1, 74) = 8.17$, $p < .01$, (b) Workplace Characteristics, $F(1, 74) = 6.88$, $p < .05$, and (c) Interventions, $F(1, 74) = 15.44$ $p < .01$.

Workplace acceptance. The lowest amount of variance in the regression model was accounted for by the Workplace Acceptance Outcome; the regression analyses accounted for 21% of the variance. Of the six predictor blocks, two blocks contributed significantly to predicting Workplace Acceptance: (a) Employment Training Specialist's Positive Feelings About the Supported Employee $F(1, 74) = 6.17$, $p < .05$ and (b) Workplace Characteristics, $F(1, 74) = 7.92$, $p < .01$.

Personal acceptance. Thirty-three percent of the variance was accounted for by the regression model in predicting Personal Acceptance. Considering all four outcomes of social integration, the regression model was most successful in predicting this outcome. Three blocks were significant predictors for Personal Acceptance: (a) Supported Employee Characteristics, F (1,74) = 11.93, $p < .01$, (b) Workplace Characteristics, F (1, 74) = 14.71 $p < .01$ and (c) Interventions, F (1, 74) = $p < 5.17$.

Feelings of social support. For the last outcome of social integration, Feelings of Social Support, 29% of the variance was explained, and four blocks were found to be significant predictors. These four blocks were: (a) Supported Employee Characteristics, F (1, 74) = 15.45 p .01, (b) Employment Training Specialist's Positive Feelings About the Supported Employee, F (1, 74) = 4.66 p 05, (c) Adequacy of Training, F (1,74) = 4.95 p .05, and (d) Workplace Characteristics, F (1, 74) 13.72 p .01.

Group Differences Among Individual Variables in the Predictor Blocks

The mean scores and standard deviations for those individual items associated with the statistically significant predictor blocks and also showing statistical differences between successful and unsuccessful cases are presented in Table 6. For Supported Employee Characteristics, the individual variable "number of accolades received (e.g., raises, promotions, awards)" was less likely to have occurred for unsuccessful than successful cases, $t = -4.21$, $p < .0001$. In addition, unsuccessful cases were less likely to be liked by people, $t = -2.33$ $p < .02$ and reportedly followed fewer directions, $t = -2.28$ $p < .03$ than the successful cases.

Insert Table 6 about here.

The results from Table 6 also indicated that employment training specialist were less likely to have positive feelings about the unsuccessful cases compared to the successful cases, $t = -3.12$ $p < .004$. In the Workplace Characteristics block, several individual variables were statistically significant. Unsuccessful cases were less likely to work in employment settings

where there were nonwork-related interactions with supervisors, $t = -2.58$ $p < .01$, potential for career advancement, $t = -2.71$ $p < .008$, interactions at social activities during work, $t = -2.37$ $p < .02$, and get togethers with co-workers after work, $t = -2.93$ $p < .005$. In addition, unsuccessful cases were unlikely to work in settings where supervisors reported having an open administrative style, $t = -4.45$ $p < .0001$. Finally, the only individual Intervention variable that was found to be statistically significant was in relation to co-workers or supervisors initiating a plan to socially integrate the supported employee. This type of intervention occurred less often for unsuccessful supported employees, $t = 2.63$ $p < .01$.

Discussion

The purpose of this study was to determine which personal and environmental characteristics predicted successful social integration in employment settings. The results from the study showed that the overall regression model was successful in predicting between 20%-33% of the variance for all four social integration outcomes. This result adds validity toward viewing social integration from an ecological perspective, suggesting that multiple personal and environmental variables are associated with integration success.

The results also confirmed the conceptual framework of social integration outcomes proposed by Chadsey-Rusch and Heal (1995). The present study demonstrated a statistically significant difference between successful and unsuccessful cases on all four outcomes examined: Social Participation, Workplace Acceptance, Personal Acceptance, and Feelings of Social Support. While these outcomes had been verified by a previous factor analytic study (i.e., Chadsey-Rusch & Heal, 1995), the present study was the first to show the discriminant validity of outcomes.

Although the regression model did account for some of the variance for each of the outcomes, not all of the predictor blocks were significant predictors. Notably, Workplace Characteristics was a significant predictor for all four social integration outcomes. Certainly, the characteristics of the work setting have always been considered in supported employment particularly when it came to making job matches (e.g., Wehman & Moon, 1988), but it has only

been recently that the characteristics of the work setting have been proposed as being important for making good social matches (Mank, Cioffi, & Yovanoff, 1997a).

Several variables associated with Workplace Characteristics were found to differentiate between successful and unsuccessful cases. For example, unsuccessful cases were less likely to work in employment settings where there were nonwork-related interactions with supervisors. Several researchers have stressed the importance of having nonwork-related interactions with co-workers (e.g., Hagner, Butterworth, & Keith, 1995; Hagner, Rogan, & Murphy, 1992), but few have acknowledged the potential importance of having similar types of interactions with supervisors. It is possible that supervisors who engage in nonwork-related interactions with their employees establish an informal tone and culture to a work setting which promotes interactions and relationships among others. This explanation seems plausible particularly because the results in this study also revealed that successful cases were more likely to work in settings where supervisors had an open administrative style and where there were high levels of interactions during social activities at work. It is unclear whether or not the informal tone set by supervisors was related to employees seeing each other outside of work, but the results of this study did show that unsuccessful cases were less likely to work in settings where this occurred. To date, there have been no studies showing a causal relationship between "seeing each other outside of work" and social integration, but several researchers have long maintained that seeing each other outside of work was an important criterion related to close social relationships and friendships (Rusch, Hughes, Johnson, & Minch, 1991).

Another Workplace Characteristic variable that separated successful from unsuccessful cases was that successful workers were more likely to work in settings where there was potential for career advancement. Assuming that career advancement leads to higher wages, this finding extends the recent work of Mank, Cioffi, and Yovanoff (1997b). In the Mank et al. (1997b) study, data suggested that supported employees working in settings considered typical were likely to receive higher wages. And Mank et al. (1997a) also found that those with more typical employment status were also more likely to have better social integration. The findings

in the present study, along with the findings of Mank and his colleagues, begins to suggest a type of work setting that may be important to consider when persons with disabilities are looking for jobs, particularly if they desire social interactions with others. Work settings supervised by employers who have open administrative style and engage in nonwork-related interactions, work settings with co-workers who have high levels of interactions during social activities and see each other outside of work, and work settings that offer the potential for career advancement may be important ones to target for employment consideration.

As expected, the variables associated with Supported Employment Characteristics were also a significant predictor for the majority of the social integration outcomes (i.e., three of four). Historically, the personal characteristics of individuals with disabilities have long been considered a factor in predicting a variety of outcomes (e.g., Heal & Rusch, 1995), and are often the focus of intervention efforts (Chadsey-Rusch & Heal, 1995). In this study, successful cases were more likely to receive accolades from work, such as raises, promotions, or bonuses, suggesting that better workers are more likely to achieve positive social integration outcomes. In addition, the present study found that successful workers were more likely to follow most directions. Chadsey-Rusch & Gonzalez (1996) found that following directions was an important work-related skill in competitive employment sites. These two findings extend the early work of Rusch (1979) who has long maintained that both social and work-related skills are essential to employment success. In addition, these findings point to the importance of training supported employees to be competent workers.

Finally, unsuccessful cases were less often liked by most people in the work setting, suggesting that successful cases may have been judged as being more socially competent than unsuccessful cases (McFall, 1982). Rubin, Bukowski, & Parker (in press) have described social competence as engaging "in interactions where [individuals] vary their behavior as a function of their short-term and long-term personal goals, their understanding of the partner's thoughts and feelings in the situation, the depth of their repertoire of alternative responses, and various "ecological" features of the context of the interactions, such as the presence of bystanders, the

physical setting, their own and their partners relative standing in a group, and the operative local customs or "scripts" for responding" (p. 7). This range and flexibility of social behaviors illuminates the complexity of social interactions, and shows just some of the behaviors that could result in positive or negative judgments from others. It is difficult to speculate which of these skills portends social integration, but the job separation literature (e.g., Lagomarcino, 1990) indicates that supported employees often have trouble decoding social situations, which then induces inappropriate social responses. Research is needed to develop effective assessment protocols that can pinpoint social skill deficit areas, and research is also needed to develop effective intervention strategies that result in positive judgments of social competence by others.

The Intervention block was predictive of two of the four social integration outcomes suggesting that, even after personal and environmental characteristics have been controlled, intervention strategies may be powerful enough to "cause" social integration. The one intervention that seemed to separate successful from unsuccessful workers was the one where co-workers or supervisors initiated a social integration plan. This finding is interesting because it adds further validity to importance of interventions designed to change the behavior of others (e.g., co-workers) rather than changing the behavior of people with disabilities (Meyer, 1991). Further research is needed regarding this intervention strategy, however, because there are few demonstrations of its effectiveness (e.g., Park, Simon, Tappe, Wozniak, Johnson, & Gaylord-Ross, 1991).

The "Employment Training Specialist's Positive Feelings About the Supported Employee block was predictive of two of the four outcomes and also discriminated between successful and unsuccessful cases. This finding suggests that unsuccessful cases were less likely to be liked by their employment training specialists which may have made it difficult for them to make a concerted effort toward achieving social integration for the unsuccessful workers. The overall lack of internal consistency among the initial variables associated with Service Provider Characteristics (i.e., the employment training specialists) implies that the questions asked on

the survey did not probe the influence of them on the social integration of supported employees. The recent work of Hyun Sook Park and her colleagues (Park, Gonsier-Gerdin, & Ramos, 1997) suggests that employment training specialists also need to be social coaches in order to promote social integration. In order to be an effective social coach, employment training specialists themselves need to possess a repertoire of competent social skills. Had the survey in the present study asked questions regarding the social skills of the employment training specialist, it is possible that the items in the service provider block may have had more conceptual integrity. As the result stands now, however, the data from this study only suggests the potential importance of the personal feelings of the employment training specialist toward supported employees in achieving social integration.

It should be noted that of all the predictive blocks, Agency Characteristics was the only one that was not significant in predicting any of the outcomes associated with social integration. This finding seems somewhat surprising considering the importance that one could attach to the philosophical necessity of agencies promoting integrated versus segregated services (Murphy & Rogan, 1995). It could also be the case, however, that there was little variability among the agencies since agencies were picked to participate in the study based on their known reputation for facilitating social integration.

There are other weaknesses associated with this study that need to be discussed. First, although the sample of participants were representative of all areas of the United States, the size of the sample was still relatively small, which limits the generalizability of the data. In addition, the data were collected by self-report methods and represent only the opinions of the employment training specialists completing the questionnaire. Future research is needed to document in an objective way the social status of supported employees and the methods used to achieve social integration. Finally, the results of the study are correlational and not necessarily causal. Studies are needed which demonstrate convincingly that the variables associated with successful social integration do indeed result in social integration for supported employees in work settings.

Even with these limitations, however, this study is believed to make a contribution because it is among the first to show the influence of personal and environmental characteristics in predicting the social integration of supported employees in work settings. These results add validity toward viewing social integration from an ecological perspective.

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Table 1

Mean Outcome Scores for Successful and Unsuccessful Cases

Outcome Area	Successful	Unsuccessful	t(80)
Personal Acceptance	3.30	1.17	-7.0931*
Social Participation	6.43	3.97	-4.8631*
Feelings of Social Support	5.85	1.39	-10.4439*
Workplace Acceptance	5.37	2.92	-6.6251*

*p<.0001

Note: Possible ranges for outcome scores are: Personal Acceptance (0 to 5), Social Participation (0 to 9), Feelings of Social Support (-1 to 7), and Workplace Acceptance (-1 to 6).

Table 2

Correlations and Items Comprising predictor Block of Supported Employee Characteristics

Item	Correlation with Total
Primary source of support at work	0.34
Support outside of work	0.23
Had friends outside of work	0.22
Responded to interactions from others	0.21
Followed most directions	0.38
Was understood by others	0.24
Was liked by most people	0.43
Hours worked	0.36
Number of benefits received	0.43
Number of advancements	0.31

Note: Cronbach's coefficient alpha was 0.65 for the block of Supported Employee Characteristics.

Table 3

Correlations and Items Comprising Predictor Block of Agency Characteristics

Item	Correlation with Total
Employment services offered by agency	0.35
Number of full-time staff in supported employment	0.44
Number of part-time staff in supported employment	0.23
Number of sheltered employees	0.40
Number of supported employees	0.39
Number of supported employees in individual placements	0.37

Note: Cronbach's coefficient alpha was 0.60 for the block of Agency Characteristics.

Table 4

Correlations and Items Comprising Workplace Characteristics

Item	Correlation with Total
Employees work same hours per week	0.31
Work-related interactions with supervisors occur during work	0.48
Work-related interactions with co-workers occur during work	0.40
Work-related interactions occur during lunch	0.37
Nonwork-related interactions with supervisor occur during work	0.44
Nonwork-related interactions with co-workers occur during work	0.47
Potential for career advancement occurs at work	0.41
Social activities occur at work	0.32
Interactions occur at social activities at work	0.42
Get togethers occur outside of work	0.38
Average turnover rates per year at work	0.23
Supervisory style at work is informal or formal	0.28
Teasing and joking occurs in the work setting	0.26

Note: Cronbach's coefficient alpha was 0.74 for Workplace Characteristics.

Table 5

Correlations and Items Comprising Predictor Block of Interventions

Item	Correlation with Total
Taught initiation of work-related social skills	0.43
Taught responses to work-related initiations	0.46
Taught initiation of nonwork-related social skills	0.43
Taught responses to nonwork-related social skills	0.44
Taught conversational skills	0.54
Taught self-determination skills	0.32
Taught individuals to decode social situations	0.25
Taught to complete work tasks that involved others	0.39
Requested others to initiate to supported employee	0.45
Requested others to respond to supported employee	0.48
Requested others to function as an advocate	0.46
Requested others to develop a social integration plan	0.23
Asked others to do things outside of work	0.36
Had supported employee involved with popular co-workers	0.47
Others initiated plan to include supported employee	0.21
Where intervention was implemented	0.30
When intervention was implemented	0.27
Involvement of others in intervention plan	0.27

Note: Cronbach's coefficient alpha was 0.79 for Interventions.

Table 6

Mean Scores and Standard Deviations of Successful and Unsuccessful Cases on Variables Associated with Predictor Blocks of Social Integration

	Group	
Predictor Block/Individual Variable	Successful	Unsuccessful
Supported Employee Characteristics		
Number of accolades received	2.48 (0.72)	2.0 (0.24)
Was liked by most people	2.35 (0.60)	2.06 (0.53)
Followed most directions	2.35 (0.84)	2.06 (0.58)
Employment Training Specialist's Positive Feelings About Supported Employee	2.98 (0.15)	2.67 (0.59)
Workplace Characteristics		
Nonwork interactions with supervisors	3.0 (0.47)	2.69 (0.58)
Potential for career advancement	3.0 (0.47)	2.75 (0.5)
Get together outside of work	2.48 (1.08)	1.8 (0.96)
Open administrative style of supervisor	2.70 (0.51)	2.06 (0.71)
High level of interactions at social activities	2.33 (0.73)	1.94 (0.71)
Interventions		
Co-workers or Supervisors initiate social integration plan	1.59 (0.5)	1.31 (0.47)

Description of Variables Impacting Successful and Unsuccessful Cases of Social Integration Involving Co-workers

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Running Head: DESCRIPTION OF VARIABLES

Abstract

The purpose of this study was to investigate the differences between 10 pairs of supported employees who had been involved in co-worker interventions and were judged to be either successfully or unsuccessfully integrated into work settings. This study was part of a larger national survey study designed to examine the variables that predict successful social integration efforts. The results from this study revealed that of the five categories of variables that could have had an impact on social integration (i.e., Agency, Supported Employee, Service Provider, Workplace, and interventions), only Workplace Characteristics and Interventions differentiated the two groups.

Description of Variables Impacting Successful and Unsuccessful Cases of Social Integration Involving Co-workers

In a recent article describing the challenges facing supported employment, Wehman and Kregel (1995) noted that although social integration was one of the field's major underlying values, it still was an issue that needed national attention. Over the years, a number of researchers have studied interactions in employment settings and implemented interventions in order to facilitate social integration (e.g., Baumgart & Askig, 1992; Chadsey, Linneman, Rusch, & Cimera, 1997; Park & Gaylord-Ross, 1989; Parent, Kregel, Metzler, & Twardzik, 1992; Storey, Lengyel, & Pruszynski, 1997). While progress has been made, the goal of social integration still seems elusive for many employees with disabilities.

Although a number of different social integration interventions have been implemented in work settings, most interventions can be categorized as being one of three types: (a) interventions designed to change the social skills of the person with the disability, (b) interventions designed to change the social context or environment of the work settings, and (c) interventions designed to change the people (e.g., co-workers) in the work setting (Chadsey & Shelden, 1998). Of these categories of interventions, the one most likely to be used in employment settings is the one designed to change the social skills of the employee with a disability (Chadsey-Rusch & Heal, 1995). Although this type of intervention has resulted in some success (e.g., Park & Gaylord-Ross, 1989; Storey et al., 1997), there often is a lack of generalization and maintenance of the skills trained. In addition, studies employing this type of intervention have not always measured the myriad of outcomes that define social integration (Chadsey-Rusch & Heal, 1995; Newton, Horner, Ard, LeBaron, & Sappington, 1994; Storey, 1993), but instead have concentrated on measuring the frequency of specific social skills trained.

With the increasing emphasis on using natural supports in work settings (e.g., Hagner, 1996; Mank, 1996; Rogan, 1996; Test & Wood, 1996), many have suggested that co-workers should be more involved in social integration efforts (Hagner, Butterworth, & Keith, 1995). Hagner and

his colleagues (Hagner et al., 1995; Hagner, Rogan, & Murphy, 1992), in particular, have offered a number of suggestions on how co-workers could be utilized to facilitate social integration. For example, in a recent survey of personnel affiliated with school and adult service organizations in Massachusetts, Hagner et al. (1995) reported that a number of strategies were suggested for facilitating interactions at work, such as identifying friendly co-workers who could help supported employees become acquainted, and encouraging direct communication between co-workers and the supported employee. Hagner et al. (1992) also suggested that co-workers could offer insights into the workplace culture which could be utilized to more successfully integrate workers with disabilities.

Although the use of co-workers has intuitive appeal, there have been few empirical investigations to validate this practice. Park, Simon, Tappe, Wozniak, Johnson, and Gaylord-Ross (1991) used a co-worker advocacy program to assist co-workers in the design and implementation of social activities with supported employees. The results of the study showed that the co-worker advocacy program was not sufficient to increase social interactions between supported employees and their co-workers. Social interactions did not increase until targeted social skills were taught to the supported employees. This led Park et al. (1991) to conclude that training social skills seemed to be the more powerful intervention, although the combination of both training approaches (i.e., co-worker and individual training of social skills) might be more effective than either intervention alone.

In a more recent study, Chadsey et al. (1997) involved co-workers in the design and implementation of an integration plan for four supported employees. Co-workers and the supported employees met as a group to suggest strategies for increasing social integration. Then, co-workers implemented the strategies. Although the data showed some evidence of success, overall the co-worker intervention was not deemed effective. Upon closer scrutiny of job coach behavior, however, Chadsey et al. found that proximity of the job coach to the supported employee and the frequency of job coach interactions dampened interactions between supported employees and their co-workers.

Due to the lack of studies using co-workers in social integration interventions, there is a need for further research in this area. In addition, research is needed because studies using co-workers have not been entirely successful. It may be, as Chadsey et al. (1997) suggested, that there are other variables (e.g., job coach behavior) that influence the success of the co-worker interventions. Clearly, research is needed to guide the field in its implementation of social integration interventions that attempt to involve co-workers.

This purpose of the present study was to investigate the differences between 10 pairs of supported employees who had been involved in co-worker interventions and were judged to be either successfully or unsuccessfully integrated into work settings. Data from this study was believed to be important because it could offer information about a number of factors (e.g., workplace characteristics, supported employee characteristics) that might influence the success of social integration interventions. This study was part of a larger national survey study designed to determine the differences between successful and unsuccessful social integration efforts.

Method

The findings in this study are based on a larger study investigating the variables that predict successful social integration outcomes. In the larger study, state rehabilitation offices in all 50 states and territories were contacted and asked to nominate up to 5 programs in their states in which they believed people were actively engaged in trying to promote social integration between workers with and without disabilities. Of the 81 state offices and territories we contacted, we received responses from 61, or a 74% return rate. Of the 61 responding, 55 (67%) elected to participate in the study, and nominated a total of 240 programs. Of the 240 programs nominated, 78 agencies (33%) provided examples we could use. States that chose not to participate were ones serving primarily persons with mental illness or people without mental retardation. When agencies did not participate, it was due to several reasons: (a) they did not return our calls, (b) they were too busy, or (c) they did not meet our participant criteria. The final list of participating agencies in the present study came from 31 different states, and

represented all 6 regions served by Regional Resource Dissemination Centers across the United States.

Participating agencies were asked to nominate two examples of workers: (a) those who had been successfully integrated into work settings and (b) those who had been unsuccessful in achieving social integration. Agencies could nominate a total of four examples, but no more than two could be successful examples. Agencies were asked to give examples of both types of integration efforts in order to reduce bias in responding.

Participants

A subsection of surveys from the larger study were selected for analysis in the present investigation. All surveys indicating that co-workers had been actively involved in the social integration intervention were pulled from the larger sample. There were three types of co-worker interventions that had to be marked on the surveys in order for them to be considered for this study. Employment specialists had indicated that co-workers had done at least one of the following three interventions: (a) implemented a social skill training program with the supported employee, (b) developed a social integration plan for the supported employee based on a request by the employment training specialist, or (c) initiated a social integration plan for the supported employee.

At the time this study was conducted, there were 33 surveys indicating that co-workers had been involved in the social integration effort. In order to match pairs, IQ scores were selected as the primary matching variable. Among this group of 33 surveys, only 10 pairs (i.e., a successful and unsuccessful case) could be matched on IQ scores and these were the ones selected for analysis. A t-test was conducted to see if the IQ scores for the two groups were the same. There was no statistical difference between the groups on their IQ scores ($t = 0.336$, $p < 0.74$). Demographic characteristics related to gender, IQ score, and jobs are presented in Table 1.

Insert Table 1 about here

Procedures

Agencies with successful and/or unsuccessful examples of social integration were sent a survey to complete. The survey consisted of questions in six areas: (a) Agency Characteristics, (b) Supported Employee Characteristics, (c) Service provider Characteristics, (d) Workplace Characteristics, (e) Interventions and Procedures, and (f) Outcome Items. The survey questions were gleaned from the literature and based on our conceptual framework suggesting that an ecological approach may best explain integration success. Surveys were completed by employment specialists who had implemented the social integration efforts and judged the integration outcome as being successful or unsuccessful. After surveys were received, follow-up phone calls were made to respondents in order to clarify information (e.g., obtain more detail about intervention procedures). All respondents received $50.00 for each survey that they completed.

Analysis

As a way of determining the differences between the successful and unsuccessful cases, the number of questions on the survey that were related to our conceptual framework of variables that could influence social integration was reduced. The reduction of variables was determined by consensus agreement among the four authors of the present manuscript. For each question or variable that was retained for analysis, rules were established for determining differences. For example, in the survey there were eight questions that were asked about agency characteristics. Of those eight questions, only one was deemed to have conceptual relevance to our framework; this question referred to the employment services provided by the agency. The rule that was established for determining if there was a difference between the cases on this variable was whether or not the agency offered any sheltered workshop services. Rules for determining differences were established for 10 questions on the Supported Employee Characteristics' section, 8 questions related to Service Provider Characteristics, 19 questions on Workplace Characteristics, and 19 questions on Interventions and Procedures.

After the rules were established, the four authors of the manuscript independently looked at the survey questions of interest to determine if a difference existed between the successful and unsuccessful cases. Intercoder reliability among the four authors was computed for all 20 cases. If there was a disagreement in coding a difference among any of the four coders, it was noted for computing the reliability statistic. Point-by-point agreement (Kazdin, 1982) was used to determine the reliability score; that is, coding agreements were divided by agreements plus disagreements and multiplied by 100. An overall coding agreement of 94% was achieved across the 20 cases. In cases where disagreements occurred, discussion among the coders occurred until 100% consensus was reached on the coding decision.

The differences between the cases on all variables were noted on a matrix. In order to summarize the results across cases, a rule was established whereby there had to be at least five cells exhibiting a difference in the same direction to be suggestive of a difference in the sample. For example, a question pertaining to Agency Characteristics asked about the employment services provided by an agency. In order for a difference to occur between the cases, one participant in the pair had to be affiliated with an agency that offered sheltered workshop services, and one had to be affiliated with an agency that did not offer sheltered workshop services. On this variable, and across all 10 cases, five differences were recorded on the matrix. However, the differences were not in the same direction because three successful cases came from agencies offering sheltered workshop services and two unsuccessful cases came from agencies offering sheltered workshop services. Consequently, an overall difference was not noted on this variable because the five differences were not in the same direction. Had all five differences been associated with successful cases (or unsuccessful cases), a difference would have occurred.

Results

There were five categories of variables where differences could occur: (a) Agency Characteristics, (b) Supported Employee Characteristics, (c) Service Provider Characteristics, (d) Workplace Characteristics, and (e) Intervention Procedures. Of these five categories,

differences were found in only two: Workplace Characteristics and Intervention Procedures. The differences between successful and unsuccessful cases in these two categories of variables are discussed below. In addition, outcomes associated with the interventions are described.

Workplace Characteristics

There were a number of variables associated with workplace characteristics where differences occurred. First, in 5 of 10 unsuccessful cases, there were fewer workers with disabilities employed by the business. In four of the five cases, unsuccessful cases worked in businesses employing no other workers with disabilities, and in the fifth case, 1-2 workers with disabilities were employed. In contrast, successful cases worked in businesses employing a range of 1-2 workers with disabilities, and in one case, 15 workers with disabilities were employed.

Successful cases seemed to work in businesses where most employees worked the same shift. For example, 6 of 10 successful cases worked in settings where employees frequently arrived at the same time and performed the same type of tasks. Five of ten successful cases worked in settings where employees frequently worked the same number of hours per day, and also worked the same number of hours per week.

A third difference between successful and unsuccessful cases was in the area of nonwork-related interactions with supervisors during work. For unsuccessful cases, 6 out of 10 worked in businesses where employees had either some or very little nonwork-related interactions with their supervisors. In comparison to the paired unsuccessful cases, successful cases worked in settings where employees sometimes or always had nonwork-related interactions with their supervisors.

In 5 of the 10 pairs, successful cases also worked in settings where employees got together outside of work for informal social activities more than unsuccessful cases. Employees working with successful cases typically saw each other outside of work several times a year to once a week, while unsuccessful cases worked in settings where employees never did things outside of

work to settings where employees saw each other several times a year. One unsuccessful case, however, worked in a business where employees got together outside of work once a week.

Finally, respondents rated half of the work settings employing the successful cases as being very relaxed. For the unsuccessful cases, the work setting was judged to be somewhat relaxed to not at all relaxed.

Interventions

All 20 cases in this study participated in an intervention where co-workers were involved in actively trying to promote social integration either by actually implementing a specific social skills training program or providing input into facilitating a social integration plan. However, all cases (to varying degrees) were involved in additional interventions aimed at improving their social integration. The differences in these additional interventions are discussed below.

On the survey instrument, respondents could choose among 16 different types of social integration interventions that they had implemented with the supported employee. Of the 16 interventions, 3 were designated as ones that actively involved co-workers leaving 13 other interventions that could be implemented. Of these 13 additional interventions, the results showed that unsuccessful cases were involved in more interventions when compared to successful cases. Unsuccessful cases were involved in an average of 9.9 (SD = 3.1) different interventions and successful cases were involved in an average of 7.5 (SD = 2.17) interventions.

Of the 13 additional interventions, 2 interventions were utilized by the majority of unsuccessful cases compared to successful cases. First, 6 of 10 unsuccessful cases were involved in an intervention where the employment training specialists tried to involve the supported employee more with popular or highly regarded co-workers. Second, 7 of 10 unsuccessful cases were involved in interventions where co-workers or supervisors were requested to function as advocates for the supported employees. With the successful cases, no one intervention was used more than twice.

One of the questions on the survey asked respondents if there were any problems implementing the interventions. An analysis of these problems revealed differences between the

successful and unsuccessful cases. With the successful cases, 8 of 10 respondents indicated that there were no problems implementing the intervention. One indicated that there were problems, and these problems had to do with the "moods and personality" of the supported employee. Another respondent indicated that the problems had to do with the co-workers, stating that, "there was high turnover on the job and some of the co-workers did not want to work with the "stupid kid," ...and some employees were unwilling to give feedback."

As might be expected, all 10 respondents of unsuccessful cases indicated that there were problems implementing the interventions; 6 of the 10 respondents described problems with the supported employee, and 4 of the 10 respondents described problems with the co-workers. For example, one respondent described the supported employee as being "too friendly and manipulative. She sought too much attention from busy co-workers. She oversocialized and she had a problem handling criticism." Another respondent stated, "The supported employee had a problem recognizing conflicts and resolving them. Eventually, the job was lost because the supported employee got into a fight with a co-worker and walked off the job."

Problems associated with the co-workers included: "The supported employee worked mostly with part-time employees and they were not receptive." Another respondent stated, "The supported employee didn't get angry when the co-workers called her "retarded," but the co-workers behaviors never improved. They caused most of the problems." A third example was the following: "Co-workers were of low mentality and lacked correct education about individuals with disabilities . . . . had difficulty treating the individual with dignity and respect and manipulated the individual to do all the undesirable jobs."

Outcomes

Respondents were asked to indicate whether or not specific outcomes occurred as a result of the intervention procedures. Respondents indicated whether or not they observed the outcome occurring or whether they asked someone if the outcome occurred. The results from this portion of the survey are included in Table 2.

Insert Table 2 about here

As can be seen from Table 2, successful cases had superior outcomes on nearly all items compared to unsuccessful cases. However, it should be noted that some unsuccessful cases did experience positive outcomes as a result of the interventions. In fact, there were two outcomes where a higher percentage of unsuccessful cases experienced the outcome compared to the successful cases. Seventy percent of unsuccessful cases (compared to 60% of successful cases) were reported to interact with co-workers/supervisors about work-related topics during the completion of work tasks, several times throughout the day. In addition, 70% of unsuccessful cases (compared to 40% of successful cases) were present more often in specific physical settings that co-workers frequented.

Discussion

The utilization of co-workers is considered to be a prominent feature of natural support strategies (Hagner, et al., 1995). Co-workers can be used to train supported employees, provide transportation, give feedback, and act as advocates. Another area where co-workers can assist is by providing support for social integration. In the area of integration, co-workers can play a passive role simply by greeting the supported employee, or a more active role by implementing a social skills training program or providing suggestions on the best ways to integrate employees. In this study, co-workers were actively involved in trying to facilitate the social integration of 20 supported employees. However, for 10 of these supported employees, social integration was judged to be successful, and for 10 integration was judged to be unsuccessful. (The judgments of success and lack of success were further corroborated by the outcome measures taken in the study.) If co-worker involvement is considered to be a "best practice" associated with natural support, but does not always lead to success, then questions need to be raised about other variables that might impact on the success. The purpose of this

study was to determine the variables that may have been responsible for the differences in successful social integration between 10 pairs of supported employees.

In this study, there were five categories of variables that could have had an impact on achieving successful social integration (i.e., Agency, Supported Employee, Service Provider, Workplace, and Interventions). Of these five categories, only Workplace Characteristics and Interventions (other than active co-worker interventions) differentiated the two groups. With regard to Workplace Characteristics, two of the differences made intuitive sense, but several of the other findings were a bit surprising. One of the logical findings was that the successful cases worked in settings where most employees arrived to work at the same time, did the same tasks, and worked the same hours. This finding provides further evidence that supported employees need opportunities to interact with nondisabled co-workers. In addition, if supported employees work the same hours and on similar job tasks, they are more likely to be viewed as being a part of the work culture (Hagner et al., 1992). However, as noted by Haring (1991), being in close physical proximity and having the opportunity to interact is a necessary, but not a sufficient, condition for interactions to occur.

Successful cases also worked in settings where employees saw each other outside of work more often than the unsuccessful cases. In some studies (e.g., Rusch, Johnson, & Hughes, 1990), seeing each other outside of work has been used as a defining characteristic of befriending, and it is possible that co-workers who see each other outside of the work setting do consider themselves to be friends. Chadsey, Linneman, Rylance, & Kronick (1998), in their study investigating the close social relationships between workers with and without disabilities, found that some respondents believed that relationships between workers with and without disabilities would be improved if they saw each other more outside of work.

The finding that successful cases worked in settings that also employed other workers with disabilities was somewhat surprising because it runs counter to the notion of individual placements being the best type of supported employment model. An explanation for this finding may be found in other research showing that employers and co-workers view persons

with disabilities more favorably if they have had experience working with them (e.g., Nietupski, Hamre-Nietupski, VanderHart, & Fishback, 1996; Shafer, Hill, Seyfarth, & Wehman, 1987; Shafer, Rice, Metzler, & Haring, 1989). In addition, a recent study in Ireland (Walsh & Linehan, 1997) also found that integration was enhanced in settings employing more than one person with a disability. It should be noted, however, that the number of other supported employees working in the same businesses as the successful cases was rather small (generally less than 5). If we heed Brown et al.'s (1989) advice for using natural proportion considerations for placement, we will be able to avoid the stigma of a group placement while still being able to enhance integration.

Another surprising finding was that successful cases were more often employed in work settings where there were opportunities for nonwork-related interactions with supervisors. Chadsey-Rusch and her colleagues (e.g., Chadsey-Rusch, Gonzalez, Tines & Johnson, 1989; Chadsey & Shelden, 1998) have long maintained that nonwork-related interactions were important for supported employees to have with their co-workers because these types of interactions might lead to the development of friendships. However, few people have mentioned the importance of engaging in these types of interactions with supervisors. The additional finding in this study that successful cases worked more often in settings that were judged as being very relaxed may interact with the supervisor finding. That is, supervisors who engage in nonwork-related interactions with their co-workers may help to establish a relaxed social climate in the work setting. This kind of setting, then, creates opportunities for interactions which may lead to the development of close social relationships among co-workers (Chadsey et al., 1997).

The results of this study also revealed that there were differences in the number and type of interventions implemented (other than interventions where co-workers were involved), and there were also differences in the problems encountered when implementing the interventions. Employment training specialists who worked with the unsuccessful cases, on the average, implemented more interventions than employment training specialists working with the

successful cases. Because unsuccessful cases were not experiencing social integration, employment training specialists may have kept trying additional interventions with the hope that one of them would work. This explanation seems plausible because all of the programs included in this study were nominated as being ones that were actively trying to promote social integration. What is unknown, however, is the depth and precision associated with the implementation of the interventions. That is, it is difficult to determine why interventions did not seem to work. Unsuccessful interventions could have been due to unsystematic implementation, generalization or maintenance problems, or simply that they were not effective. Research is clearly needed to demonstrate which types of interventions are effective for increasing social integration. This research seems even more pressing due to the small number of social integration intervention studies conducted in supported employment sites (Chadsey & Shelden, 1998).

Across the different types of interventions implemented for both successful and unsuccessful cases, there were only two that occurred with the highest frequency and these were tried with unsuccessful cases. The two interventions used with the highest frequency were having the supported employee be more involved with the most popular or well-liked co-workers, and asking supervisors and/or co-workers to serve as advocates. Again, it is difficult to determine why these interventions were used the most and why they were unsuccessful. One possible explanation may be associated with the passive nature of these interventions. Asking supervisors or co-workers to serve as advocates, or asking the best-liked co-workers to hang out with the supported employee does not require much effort for employment training specialists, and without a systematic program, does not require much effort for co-workers or supervisors. But, it is possible that a lack of effort, or a more passive intervention, does not yield effective results. When Park et al. (1991) implemented a co-worker advocacy program, it was not successful until an individual program was implemented to change the social skills of the supported employee. Changing social integration is a complex process and it is likely that

passive interventions will have little impact on relationships between workers with and without disabilities.

It was not surprising to find that problems occurred during the implementation of the interventions with all 10 of the unsuccessful cases. As indicated by the results, 60% of the problems were felt to be due to the social behaviors of the supported employee, and 40% of the problems were felt to be due to the co-workers. That the majority of the problems were felt to be due to the social behaviors of the supported employee was not unexpected, and past research suggests that most service providers utilize training procedures aimed at changing the social skills of the individual as the intervention of choice for increasing social integration (Chadsey-Rusch & Heal, 1995). Yet, there does not seem to be overwhelming evidence that individual social skill training procedures are the most effective for enhancing social integration.

The finding that co-workers accounted for some of the implementation problems, combined with the primary finding from this study that work setting characteristics seem to influence successful outcomes, suggests a need for a comprehensive system of interventions. Recently, Horner and Carr (1997) stressed the need for comprehensive interventions for the management of problem behaviors. The complexity of problem behaviors makes it unlikely that a single intervention can have much effect. Consequently, Horner and Carr (1997) called for combined interventions that could be applied throughout the day and were consistent with the values of the individuals involved. While the precise technology associated with comprehensive interventions still requires further research, the concept of comprehensive interventions seems to merit consideration for workers who do not experience social integration in work settings. A comprehensive system of intervention would require an analysis of the variables that maintain inappropriate social behaviors (e.g., the consequences, antecedents, and setting events), along with the design of multiple intervention strategies that might consist of systematic programs that change the social skills of the worker and co-workers, aspects of the job tasks, and characteristics of the work setting. There are few examples of comprehensive interventions being applied in work settings, although Kemp and Carr (1995) demonstrated the use of a

comprehensive intervention which increased time spent in the work setting without problem behavior and increased the completion of work steps. Measures were not taken to see if social integration increased, so it is not known if this intervention approach could affect this outcome. Clearly the use of comprehensive interventions seems to be a promising area of research that could be applied to employment settings.

Although this study suggests variables that may influence the success of social integration efforts involving co-workers, the results must be interpreted cautiously due to a number of limitations. First, the descriptive nature of the study precludes causality, so the differences between unsuccessful and successful cases are only suggestive. Second, the size of the small sample limits the generalizability of the results. And finally, the use of a self-report instrument for data collection relies primarily on subjective perceptions rather than objective counts of behavior. These limitations suggest the need for further research efforts involving larger samples of participants so inferential analyses can be conducted. Limitations notwithstanding, this study is believed to make a contribution to the literature because it is one of the first to suggest that having co-workers involved in social integration efforts will not necessarily lead to success. In addition, this study has indicated that a number of workplace characteristics may be important mediating variables for facilitating successful social integration outcomes.

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Table 1

Demographic Characteristics of Successful and Unsuccessful Cases

Cases	Status	IQ	Age	Gender	Job
1.	Successful	67	31	Male	Clerk
	Unsuccessful	69	26	Female	Dietary Aid
2.	Successful	60	25	Male	Broiler Operator
	Unsuccessful	60	35	Male	Courtesy Clerk
3.	Successful	82	19	Male	Courtesy Clerk
	Unsuccessful	75	22	Male	Courtesy Clerk
4.	Successful	70	24	Female	Housekeeping
	Unsuccessful	70	33	Male	Pre-louder
5.	Successful	61	23	Male	Lobby Attendant
	Unsuccessful	65	32	Female	Housekeeper
6.	Successful	60		Female	Document Preparer
	Unsuccessful	65	24	Female	Clerical Assistant
7.	Successful	65	20	Female	Food Service Worker
	Unsuccessful	70	29	Male	Cleaner
8.	Successful	47	20	Male	Mechanic Assistant
	Unsuccessful	36	26	Male	Fast Food Worker

Cases	Status	IQ	Age	Gender	Job
9.	Successful	65	31	Female	Housekeeper
	Unsuccessful	69	29	Female	Parking Lot Attendant
10.	Successful	62	21	Female	Line Worker
	Unsuccessful	67	25	Female	Nurse's Aide

Table 2

Percentage of Successful and Unsuccessful Cases Experiencing Social Integration Outcomes

Outcome	Percentage Achieved By Successful Cases (n = 10)	Percentage Achieved By Unsuccessful cases (n = 10)
1. Co-workers/supervisors indicate they:		
a. like to eat lunch with supported employees (SE)	70	30
b. like to see SE after work	60	20
c. consider the SE to be a friend	60	30
d. like to take breaks with the SE	80	30
e. like the SE to attend company social events	60	40
2. The SE interacts with co-workers/ supervisors about work-related topics:		
a. during arrival to work	90	60
b. during lunch and breaks	80	50
c. during the completion of work task	60	70
3. The SE interacts with co-workers/ supervisors about nonwork-related topics:		
a. during arrival to work	70	70
b. during lunch and breaks	60	40
c. during completion of work tasks	70	50
4. The SE interacts with co-workers/ supervisors several times during company sponsored events	50	40

Outcome	Percentage Achieved By Successful Cases (n = 10)	Percentage Achieved By Unsuccessful cases (n = 10)
5. The SE is present more often in specific physical settings that co-workers frequent	40	70
6. The SE participated more during specific social occasions	50	30
7. Co-workers indicate they:		
a. like to work with the SE	70	30
b. advocate for the SE	100	50
c. consider the SE to be an acquaintance	70	70
d. consider the SE to be a team player	60	30
8. The co-workers/supervisors general interaction style with the SE is:		
a. more positive	70	50
b. the same	20	40
c. more negative	10	10
9. Co-workers/supervisors are willing to train the individual on work tasks	80	70
10. The SE is:		
a. less lonely	90	60
b. happier	60	20
c. more satisfied with friendship network	80	50
d. more satisfied with social interactions with co-workers	80	40
11. The SE has higher self-esteem	80	30

Outcome	Percentage Achieved By Successful Cases (n = 10)	Percentage Achieved By Unsuccessful cases (n = 10)
12. The SE feels that he/she:		
a. has more positive interactions with co-workers	70	40
b. has more negative interactions with co-workers	10	30
c. is more socially competent	80	40

Examining Personal and Environmental Variables for Social Integration Success in Employment Settings

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Running Head: EXAMINING PERSONAL AND ENVIRONMENTAL VARIABLES

Abstract

This paper considers social integration and competence for persons with mental retardation by exploring the issue of adjusting interventions for more successful outcomes. Borrowing the idea of "second-generation research" from the area of early childhood, this paper applies the concept to research being done in employment settings. The premise behind second generation research questions is that answers will provide information about the effectiveness of interventions given specific conditions (e.g., personal and environmental characteristics). In this paper, a brief description of three intervention categories used to impact the social inclusion of supported employees is provided. Then, other factors that could mediate or interact with interventions are discussed. Finally, future research directions are proposed.

Examining Personal and Environmental Variables for Social Integration Success in Employment Settings

The importance of social integration and inclusion in the lives of persons with disabilities has been well documented for children of very young ages (e.g., Guralnick & Neville, 1997) to older adults (e.g., Park, Chadsey-Rusch, & Storey, 1998). Social competence, which affects social integration, has also been shown to be important in nearly every setting that involves interactions with others. A lack of social competence has affected negatively persons with disabilities in school settings (e.g., Siperstein & Leffert, 1997) to work settings (e.g., Greenspan & Shoultz, 1981). If social integration and inclusion is an important outcome for persons with disabilities, and if a lack of social competence mitigates against it, then the question that needs to be asked is what types of interventions can be used to assure both integration and competence.

This paper will consider social integration and competence for persons with mental retardation in work settings. Rather than describing individual intervention studies that have tried to change social integration and competence, however, this paper will raise the issue about adjusting interventions for more successful outcomes. The importance of this issue relates to the difficulty of knowing what kind of intervention to use with a particular person in a particular work setting. Chadsey and Shelden (1998) described three categories of interventions that have been used in work settings to increase the social integration and/or competence of supported employees. After their review of individual studies reflecting these categories of interventions, Chadsey and Shelden (1998) could make no definitive statement about which type of intervention would result in successful outcomes. Instead, Chadsey and Shelden recommended that strategies were needed to "match" interventions to particular persons and work settings.

A parallel call (although in a much more organized and scholarly fashion) has been made by Guralnick (1997a). In his recent book, Guralnick (1997b) stressed the need for "second-generation research" in early intervention programs. Guralnick (1997a) refered to first-generation research in early childhood as that research that occurred prior to the passage of P.L. 99-457

demonstrating the general effectiveness of intervention programs designed for children who were born at risk or who had recognizable disabilities. As pointed out by Dunst, Trivette, and Jodry (1997), first-generation research addressed questions about the global effectiveness of early intervention programs, but did not address "questions about the conditional and unconditional effects of early intervention provided to different groups of children and families under specifiable conditions" (p. 502). The same type of question could be asked about interventions designed to affect the social inclusion and competence of persons with mental retardation in work settings (hereafter, referred to as supported employees). That is, we know that some interventions result in success some of the time, but we do not know under which conditions particular interventions will be effective.

One area that could serve as a model for selecting specific interventions in employment settings is in the area of challenging behavior. Recently, Horner and Carr (1997) described the components of comprehensive interventions being used to provide behavioral support for individuals with challenging behavior. According to Horner and Carr, "an intervention is comprehensive when it (a) addresses all problem behaviors performed by an individual; (b) is driven by the functional assessment; (c) is applied throughout the day; (d) blends multiple intervention procedures (change in structure, instruction, consequences); and (e) incorporates procedures that are consistent with values, skill, and resources of the implementors" (p. 94). Within the area of challenging behavior, functional assessment is crucial because it identifies the variables that predict and maintain the problem behavior. A functional assessment yields information about (a) why the individual exhibits the behavior, (b) what specific or immediate factors or stimuli are likely to trigger the behavior, and (c) what broader contextual variables set the occasion for specific stimuli to be more likely to cause the behavior (Horner & Carr, 1997). This precise assessment technology provides important information for understanding why the behavior occurs and under what conditions the behavior is likely to be emitted. The understanding gained from this assessment then offers direction for selecting interventions that will be effective. As noted by Horner and Carr (1997), the complexity of challenging behavior

makes it unlikely that one single intervention can produce the desired effect; thus, the call for comprehensive interventions that can create meaningful change in lives of persons with disabilities.

The call for second-generation research by Guralnick (1997a) and the model of comprehensive interventions proposed by Horner and Carr (1997) provide a promising direction for selecting interventions that may facilitate the social integration and competence of supported employees. This paper will incorporate the premises behind these two views into an initial framework of factors to consider when trying to select interventions that could impact social integration and competence. First, a brief description of three intervention categories used to impact the social inclusion of supported employees will be provided. Then, other factors that could mediate or interact with interventions (Dunst et al., 1997) will be discussed. Finally, future research directions will be proposed.

Categories of Interventions

Based on the earlier work of Haring and Breen (1989) and Chadsey-Rusch and O'Reilly (1992), Chadsey and Shelden (1998) described three categories of interventions that could be used to impact the social inclusion of supported employees. Labels assigned to these three types of interventions included: (a) Individual Interventions which are designed to change the social skills of the supported employees, (b) Co-worker Interventions which are designed to change people, other than the supported employee, in the work setting, and (c) Contextual Interventions which are designed to change the work environment or social context.

Even within these categories of interventions, however, specific procedures can vary which adds to complexity of variables that could influence social outcomes. For example, within the category of Individual Interventions, Chadsey-Rusch (1986) described the components of most social skill training packages that have been used to teach social skills. These components generally consist of a (a) rationale explaining why a particular target behavior is desirable, (b) an opportunity to observe examples of the behavior (i.e., modeling), (c) an opportunity to practice the behavior, usually in role play situations, and (d) feedback regarding performance.

But, social skill training packages are by no means the only type of Individual Intervention procedures used to change the social skills of supported employees. Other Individual Interventions have utilized problem-solving strategies (e.g., Park & Gaylord-Ross, 1989), self-monitoring (e.g., Misra, 1992), and technology (e.g., Morgan & Salzberg, 1992).

Within each category of interventions designed to impact integration and competence, varying degrees of success have been achieved. The most important question we have asked at this point has been "Was the intervention effective?" If the intervention was effective, we may not really know why. If the intervention did not seem to work, we also may not really know why. We could assume that successful interventions (or even unsuccessful interventions) were due to the design and conduct of the intervention itself. Or it could be that the success, or lack of success, could be due to other mediating variables, or the interaction of variables, such as characteristics of the supported employee, job coach, workplace, or agency. As Guralnick (1997b) has pointed out for the field of early childhood, second generation research questions need to be asked in order to determine under what conditions certain interventions are effective. The same type of question may need to be asked of interventions designed to impact the social integration and competence of supported employees.

Other Mediating Variables

In their chapter on the influences of social support, Dunst et al. (1997) suggested a framework for looking at second-generation research questions that considered a number of variables that could influence outcomes. The framework Dunst et al. proposed was:

$$B = f (I, P, S, C, F)$$

In this framework, B refers to the dependent variable or the outcome, I is the characteristics of the intervention (e.g., teaching strategy), P refers to characteristics of the program (e.g., type, staffing pattern), S is the category of social support (e.g., number of support network members), C consists of child characteristics (e.g., severity of disability) and F refers to family characteristics (e.g., SES status). As noted by Dunst et al. (1997), this list of variables is not exhaustive but only suggestive of the number of factors that could influence desired outcomes.

Inspection of this list reveals the importance of considering the mediation and interaction of environmental and individual variables. This ecological perspective (e.g., Bronfenbrenner, 1979; Schoggen, 1978) was recently used in a study by Chadsey, Shelden, Cimera, and Horn (1998) to determine the variables that resulted in successful social integration efforts. In the Chadsey et al. study, some of the variables were similar to the ones proposed in the formula by Dunst et al. (1997). Adapting the formula suggested by Dunst et al., a formula for the variables used in the Chadsey et al. would be:

$$O = f (I, A, SE, SP, W)$$

In this conceptualization, O refers to the outcome which could be a variety of dependent variables thought to measure social integration (c.f., Chadsey-Rusch & Heal, 1995) and competence. I denotes the intervention used, A refers to characteristics of the agency providing support to the supported employee, SE describes the supported employee, SP consists of the characteristics associated with the service provider (i.e., employment training specialist), and W refers to work setting descriptions. Examples of each of these variables and their potential impact on social integration and competence outcomes are discussed below.

Intervention characteristics. Particular types of interventions, and specific intervention procedures, may influence social competence and integration outcomes. As has already been discussed, interventions can be designed to change the social skills of the individual with the disability (Individual Interventions), the environment or social activity arrangements (Contextual Interventions), or created to change others within the environment (Co-worker Interventions). Within each of these categories, there are several specific interventions that could be tried. For example, when describing Individual Interventions based on consensus ratings from project directors who had federally-funded model demonstration transition projects, Chadsey-Rusch and Heal (1995) listed eight different types of interventions (see Table 1). Chadsey-Rusch and Heal also delineated seven different type of Co-worker (and Employer) Interventions (see Table 2). Although Contextual Interventions were not rated as a viable category of

interventions as a result of the factor analysis conducted in the Chadsey-Rusch & Heal (1995) study, examples of interventions of this type are included in Table 3.

Insert Tables 1, 2, and 3 about here

Within the intervention type selected, however, there are still other variables that could influence the targeted outcome. For example, it may make a difference who implements the intervention program (e.g., employment training specialist, co-worker), where the intervention is implemented (e.g.., worksite, agency), when the intervention is implemented (e.g., before work, during work), how many times the intervention was implemented (e.g., once a week, several times a day), and the specific teaching strategy used to teach the skill (e.g., social skill training package or cognitive-process model).

Agency characteristics. The philosophy of service agencies toward providing integrated employment services could affect the commitment and resources allocated toward improving integration outcomes (Wehman & Kregel, 1995). Although most directors of many agencies may state that they have this philosophy, a better way to actually measure their commitment to social integration may be to consider the actual services provided by the agency. Thus, variables that may impact social integration and be associated with agency characteristics might be they types of services provided (e.g., supported employment, sheltered employment), length of time the agency has offered supported employment services (those operating longer may be more experienced), the number of personnel devoted to supported employment services, the number of consumers in sheltered versus supported employment, and the number of consumers placed individually in the community.

Supported employee characteristics. A number of personal characteristics related to the supported employee could have an impact on social integration; these personal characteristics could be related to the social functioning of the individual as well as related to the work skills of the individual. General characteristics that may be important as variables might include:

gender, age, ethnicity, cognitive abilities, type of disability (e.g., mental retardation in combination with secondary disabilities), level of ambulation, and independence in living arrangement. Social characteristics which might impact the level and type of integration experienced might include: the primary communication system used by the supported employee, and whether or not the supported employee likes to interact with others on the job, prefers to be alone, has friends at work and outside of work, initiates and responds to interactions from others, follows directions, is well groomed, is understood by others, and is liked by most people. A possible final category of variables associated with the supported employee concerns his or her work skills. These variables might consist of type and level of support needed on the job (e.g., continuous job coaching), hours worked, type of job, benefits received on the job (e.g., raises, promotions), and reason for leaving last job.

Service provider characteristics. Since most supported employees have employment training specialists that provide support on the job, it is very possible that the interaction style displayed by this individual could impact social integration outcomes. In fact, Park, Chadsey-Rusch, and Storey (1998) suggest that in many respects the employment training specialist (or job coach) often takes on the role of a social coach when attempting to facilitate social integration.

Service provider characteristics that might affect social outcomes may include: age, gender, ethnicity, personal feelings toward the supported employee (e.g., likable feelings), level of education attained, number of years in job, type of training received by agency, feelings about training, and continued involvement in education or training activities that would enhance job skills.

Workplace characteristics. As noted by many ecologists (e.g., Moos, 1973), the characteristics of environments and the people inhabiting those environments can directly affect the social climate the of the setting. Consequently, a number of variables should be considered within this domain. One class of variables relates to the prior experiences had with supported employees in the setting, e.g., how many people with disabilities work, or have worked, in the

setting, and if more than one works, are they dispersed throughout the setting or are they clustered together in a group? Additional variables might relate to the general work culture of the setting and might include: the general work schedule of most employees (e.g., if they all arrive and leave at the same time), prevalence of work-related and nonwork-related interactions throughout day with co-workers and supervisors, opportunities for career advancement and other benefits, prevalence of social parties and seeing each other outside of work, type of training provided on job, necessity for teamwork, yearly turnover rate, supervisory style exhibited, ability to joke and have fun, judgments on whether the work environment is friendly, relaxed, and if most people enjoy working in the setting, and finally, attitudes of supervisors and co-workers toward working with persons with disabilities.

Future Directions

The list of variables presented above should not be considered exhaustive but should be viewed as initial collection of variables that might contribute to the success (or lack of success) in achieving integration or social competence. Future research studies (i.e., second-generation research) are needed to determine which variables have an impact on successful outcomes. Although Chadsey et al. (1998) attempted to provide an initial look at the relevance or importance of some of these variables, the use of a regression analysis in their study only provided correlational rather than causal information about the variables leading to successful social integration.

Research designs that could be used to investigate the contribution of these variables might be of several types. First, comparative studies could be used where an initial selection of variables from all five categories (i.e., interventions, agency, supported employee, service provider, and work) would be compared to either a control group or another experimental group or both. While this design might not be able to determine the contribution of individual variables (except perhaps by statistical methods), it would provide information about the success of the group of variables.

Single-subject research designs could also be used to provide information on this topic. Again, a careful description of all five categories of variables would need to be included in the study, and replications would need to occur across several subjects to show the strength of the variables for creating successful results. For example, a multiple baseline design across three supported employees could be used. From a design perspective, and for this example, let us assume that there are three supported employees who rarely initiate interactions with their augmentative devices, they are all individually placed in office settings, they receive continuous job coaching, they come from a traditional service agency, and their co-workers are moderately friendly. The intervention of choice for this study might be a combination of contextual manipulation (e.g., decrease continuous job coaching), co-worker intervention (e.g., teach co-workers how to respond to augmentative devices), and individual instruction (e.g., provide supported employees with practice opportunities to initiate socially valid conversational topics). The potential problem of both group and single-subject designs would occur if successful outcomes were not achieved because it would be difficult to determine which category of variables (or which individual variable within a category) caused the negative results. Consequently, the initial selection of variables would need to be done carefully in order to maximize the likelihood of success.

If one were to design a study such as the ones described above, how does one select the variables that would maximize the likelihood of success? Until research of this type is initiated, investigators will have to rely on prior literature and "best guesses" when selecting interventions that might be successful in combination with the characteristics of the supported employee, service provider, agency, and work setting. For example, if one were working with a supported employee who desired close social relationships with others, had the ability to communicate but did not do it very often, and had difficulty following directions, one might select Individual Interventions Strategies as the primary independent variable. Within Individual Intervention Strategies, and considering prior research, one might teach direction following (Chadsey-Rusch & Gonzalez, 1996) and try to increase the frequency of communication using a cognitive-process

approach that was taught right before work (Park & Gaylord-Ross, 1989). In addition, one might also want to consider using Co-worker Intervention Strategies whereby co-workers were involved in identifying strategies for integrating the worker (e.g., Chadsey, Linneman, Rusch, & Cimera, 1977; Park, Simon, Tappe, Wozniak, Johnson, & Gaylord-Ross, 1991). A careful description would also need to done of Agency Characteristics to describe their commitment to supported employment and integration. It also might be important to note whether or not the service provider felt comfortable with his or her level of training in facilitating social integration (e.g., Chadsey et al., 1997). Finally, the interaction style of supervisors in using nontask interactions (Chadsey, Shelden, Horn, & Cimera, 1998), the existence of other supported employees in the setting (Walsh & Linehan, 1997), the presence of co-workers who have relatives with disabilities (e.g., Chadsey, Linneman, Rylance, & Kronick, 1998), and an overall friendly and warm work environment (e.g., Chadsey et al., 1998) are all variables that might impact success. Certainly, other combinations of variables could be considered for selection, but it may make sense for the initial selection to be based on prior empirical work.

The type of research just described above may differ from prior research in its level of detail and careful description. For example, one of the noteworthy characteristics of applied behavior analysis research is the emphasis placed on the replicability of the intervention procedures (Baer, Wolfe, & Risely, 1968). In published journal articles, intervention procedures must be described with enough precision so they can be replicated by journal readers. The type of research described in this paper would require the same attention devoted to replicability. But, in addition, this research would require careful description of the other mediating variables that might impact with the intervention. For example, characteristics of the participants (i.e., the supported employee) and settings (i.e., work), would need to be described in more detail. In addition, details regarding the characteristics of the service provider, and possibly the service agency, would also have to be noted. These two classes of variables (i.e., service provider and agency) are rarely described in research and only cursory attention has been given to the role they might have in mediating the effects of interventions.

Merely describing these mediating variables in the method's section, however, would not be sufficient. In order to truly understand the effect of these variables, they would need to be considered as independent variables in their own right. Therefore, results would need to be interpreted not only in relationship to the intervention independent variable, but also in relationship to the other mediating variables that could affect the intervention. If careful attention were given to the multiple variables that could impact social integration success, and if specific combinations of variables were consistently found to actually "cause" social integration success, then this type of research could also make a contribution to ecological theory.

From an applied perspective, and following the model suggested by Horner and Carr (1997), it is likely that a comprehensive model of "intervention" will be needed for complex outcomes such as integration and inclusion and the reduction of challenging behavior. It may be unrealistic to assume that one single variable (e.g., type of intervention strategy) could account for successful outcomes associated with complex behaviors. It is more likely that social inclusion and competence are associated with several intervention strategies and their interaction with numerous other personal and environmental variables. The challenge for future researchers is to provide a series of templates which suggest the group of variables associated with successful outcomes given particular supported employees and work environments.

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Table 1

Individual Interventions

Teach the initiation of work-related social skills (e.g., asking for help, offering assistance, providing information, asking questions).
Teach responses to work-related initiations from others (e.g., responding to criticism, answering questions).
Teach the initiation of nonwork-related social skills (e.g., greetings, teasing and joking, asking questions, social amenities).
Teach responses to nonwork-related initiations from others (e.g., greetings, answering questions).
Teach conversational skills, which include initiating, responding, and taking turns during a variety of conversational topics (e.g., sports, family, current events).
Teach self-determination skills (e.g., Teach individuals to advocate for themselves and be persistent problem-solvers).
Teach individuals to interpret and discriminate social situations and cues from others so they know when, how, and with whom to interact in a socially appropriate manner.
Have individuals involved more often in the completion of work tasks involving other co-workers or supervisors.

Table 2

Co-Worker/Employer Interventions

Request that co-workers or supervisors initiate social interactions to the employee with a disability (e.g., talking about topics both people enjoy).
Request that co-workers or supervisors respond to social interactions made by the employee with a disability.
Teach co-workers or supervisors to implement a social skill training program with an employee with a disability.
Request that a co-worker or supervisor function as an advocate for the employee with a disability.
Request that several co-workers develop a social integration plan for the employee with a disability.
Ask a co-worker who likes the same type of recreational activities as the employee with a disability to do things together outside of work.
Have individuals involved more with popular or highly regarded co-workers.

Table 3

Contextual Interventions

Have the individual sit or stand more often in specific physical settings that co-workers frequent (e.g., lunchroom, break area, coffee room).
Have the individual participate more during specific social occasions (e.g., attending parties, making coffee, bring food to share).
Have the individual involved more in the completion of work tasks involving other co-workers or supervisors.

POSSIBLE APPLICATIONS FROM THE RESEARCH STUDIES

NOTE: This section of the monograph contains possible applications from the research studies conducted during this project. In particular, many of the applications were derived from our work during the conduct of the study entitled "The Impact of Social Integration Interventions and Job Coaches in Work Settings." For each application, a small description is provided on how the reader might use the information. We hope that the applications begin to build a bridge from research to practice.

Assessment of Workplace Dynamics

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Assessment of Workplace Dynamics[1]

The purpose of this survey is to assist job developers and employment specialists in understanding the work culture of specific employment sites, and thus be more effective in providing services for employees with disabilities. This survey can be used in several ways:

⇒ **Use the survey at any time during employment to identify opportunities and strategies to facilitate more positive social interaction between the supported employee and his or her co-workers.** *Look for discrepancies in the social interactions of the supported employee and those of his or her co-workers. For example, perhaps most co-workers congregate around lockers for 10 minutes before beginning work, but the supported employee begins work one hour later than other employees, so he or she doesn't have those opportunities for interactions. Once you note this discrepancy, you may be able to change the employee's schedule so that he or she can begin work when co-workers begin.*

⇒ **During job development or the initial stages of employment, use the survey to identify possible sources of support for the supported employee.** *Completing the assessment may help you identify more supportive co-workers, co-workers who have similar interests as the employee, or opportunities for job carving or overlapping job duties. Any of these may be possible sources of support for the employee.*

⇒ **During job development, use the survey to make a better match between the personality and needs of the supported employee and the characteristics of a job site.** *Complete the assessment for potential job sites when you conduct a job analysis. Compare what you learn about the culture of the potential workplace (e.g., relationships, communication, cooperation, etc.) with what you know about the job seeker. Taking into consideration the cultural preferences or needs of the job seeker and matching those with a worksite should result in a better job match.*

Complete the survey by interviewing the supported employee and co-workers, observing the work site, or a combination of the three.

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[1]This material adapted from Hagner, D. (1994). *Survey of Workplace Culture.* 21st Annual Conference for The Association for Persons with Severe Handicaps, Atlanta.

Arrival

1. Describe the employees' interactions during arrival to work. Do they arrive together or separately? Do they greet one another? What kind of mood are they typically in--joking, serious, tired? What do they talk about?

Does the supported employee arrive with other workers? How does he or she interact with co-workers during arrival?

2. Do people go to a central location to check in, get supplies or mail, store personal belongings, or get something to drink or eat? Do they stay in these areas to talk? What do they talk about?

Does the supported employee follow the same check in routines as the other workers? Does the supported employee stay in arrival areas to talk? What does he or she talk about in these areas?

How is the arrival of the supported employee similar to that of his or her co-workers? How is it different?

Breaks/Lunch

1. Describe the employees' break and lunch periods. Do they take these breaks together or separately? Where do they go to eat? Do they sit in small groups or all together? Are there break "cliques"? What do people talk about--work, home, family, sports, television?

With whom does the supported employee take breaks or lunches? What does he or she talk about during breaks or lunch? How are his or her breaks or lunches the same as other employees? How are they different?

2. Do people ever go out for lunch? How often—frequently or only for special occasions? Who goes—everyone or just a few people? Who does the inviting? Where do they go? Is conversation different at these times than when people take lunch at work?

How is the supported employee included in these lunches?

Departure

1. Describe the employees' interactions when they leave work. Do they leave together or separately? Do they say good-bye to one another? What kind of mood are they typically in—joking, serious, tired? What do they talk about?

Does the supported employee leave at the same time as other workers? How does he or she interact with other workers during departure?

2. Do workers go to a central location to check out, return supplies, get personal belongings? Do they stay in these areas to talk? What do they talk about?

Does the supported employee go to these areas? Does he or she talk with other workers in these areas? What does he or she talk about?

How is the departure of the supported employee the same as other supported employees'? How is it different?

3. Do people ever go out together after work? How often—frequently or only for special occasions? Who goes—everyone or just a few people? Who does the inviting? Where do they go? What do they talk about?

How is the supported employee included in these social gatherings?

Working Together

1. Describe the amount of collaboration needed to get work done. How much cooperation is needed to complete general jobs? Are there special projects or busy periods that require more team effort? Do people share equipment or tools?

How often does the supported employee work with co-workers? Does he or she enjoy working with co-workers? Are there tools or equipment that he or she does share or could share with co-workers?

General Socializing

1. Is there a time during the day when people tend to get together and talk more—during slow periods or after a break? What do they talk about at these times?

   Does the supported employee join co-workers at these times? Is he or she available at these times?

2. Is there a place where everyone goes to get supplies, make copies, get mail? Do people stay and talk there?

   Does the supported employee join co-workers at these times? Is he or she available at these times?

3. Is there a time when people get coffee or water? Do they usually stay and talk or do they go right back to work?

   Does the supported employee join co-workers at these times? Is he or she available at these times?

4. In general, how much informal socialization occurs during work? What do people talk about?

   How does the supported employee socialize during work?

5. Is there a coffee, food, or gift fund? How does it work? Do people bring in food (e.g., doughnuts) or drinks for everyone? How often? Do these get shared at arrival, break, or lunch?

   Does the supported employee participate in the fund? Does he or she ever bring in food or drinks?

6. Are there special occasions when people get together—birthdays or promotions? Does the boss or supervisor arrange special parties or events? Does everyone go or only certain groups?

How is the supported employee included in these get togethers?

7. Is this a friendly place or a serious place? Are there people here who are difficult to work with? Do people enjoy talking to and being with their co-workers?

What does the supported employee think of this place? What does he or she think of his or her co-workers? Would he or she rather work in a more formal or informal work setting?

Other Considerations

1. How do people dress? Is there a uniform?

How does the supported employee dress?

2. Do people decorate their work space? Do people share work space?

Has the supported employee decorated his/her work space? How? With whom does he or she share work space?

3. How many people work in the same general area?

How many people work in the same general area as the supported employee?

4. How often is the supervisor in the same location as the employees? How does the supervisor interact with his or her employees?

How does the supervisor interact with the supported employee? How does that interaction compare with how the supervisor interacts with other workers?

5. What are some of the interests or hobbies of co-workers likely to work with the supported employee?

What are some of the interests and hobbies of the supported employee?

Additional Observations

In the space below comment on any other observations you made about the work culture (e.g., how people interact with one another, who the most and least "popular" workers are, co-worker insights, etc.)

Assessment of Intervention Outcomes

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Assessment of Intervention Outcomes

This form is an example that employment training specialists can use to assess the effectiveness of their interventions for enhancing social integration and interactions between employees with and without disabilities. The three outcome categories were derived from Building Consensus from Transition Experts on Social Integration Outcomes and Interventions (Chadsey-Rusch & Heal, 1995)[1].

Information can be collected as often as the employment specialist deems suitable. For example, the employment specialist could use the form once a day at the same time, every day of the week or alternatively, several times a week at periodic intervals such as during arrival and departure, break and/or lunch times, and during work hours.

The assessment form has columns for the employment specialist to write down the date and context of the observations and whether the outcome did (+) or did not (-) occur. After completing the form, the employment specialist could count the number of outcomes marked and write the totals against each item row. A large number of 0's for particular outcomes may indicate (for instance) that social interactions occur between the supported employee and his or her co-worker only in certain contexts. Employment specialists may then wish to design interventions in specific areas or situations where interactions need to be enhanced. For example, if the supported employee is interacting with the co-workers about job-related tasks on a frequent basis yet has no interaction with them outside working hours, the employment specialist may consider it appropriate to design strategies to maximize opportunities for social interactions outside the workplace (e.g., organize a car pool, suggest a once-a-week dinner outing, etc.). Another example may indicate that while the supported employee has constant interactions with his or her co-workers, he/she may still feel lonely and unsatisfied with his/her friendship network. Here, the employment specialist may wish to work closely with the supported employee to find out why he/she is lonely and what could be done for the employee to reach his/her social goals.

This form is not intended to produce a finite evaluation of intervention outcomes: obviously, not all the items will be relevant to every supported employee or relevant for every work setting. The form is an example intended to provide a base from which employment specialists may tailor their own assessments of the supported employees' social interactions and subsequently, evaluate the outcomes of those interventions.

[1]Chadsey-Rusch, J., & Heal, L. W. (1995). Building consensus from transition experts on social integration outcomes and interventions. Exceptional Children, 62 (2), 165-187.

Name of Supported employee: _____

Name of Employment Specialist: _____

Assessment of Intervention Outcomes

Write the date and describe the context or setting where the observation took place, i.e., break, departure, during work, weekend, etc. Following each item, indicate whether the outcome occurred (+) or did not occur (-) as a result of the observation.

For example, if the information in the table below looked like this:

Date	7-17	7-18	7-19
Context	lunch	lunch	lunch
1a.	+	-	-

it would indicate that on 7-17 co-workers/supervisors said they ate lunch with the supported employee and on 7-18 and 7-19, they did not.

The "employee" refers to the supported employee unless otherwise stated.
If the item is not applicable to the employee's work situation (i.e., the intervention was not implemented), write "N/A".

Personal Acceptance Outcomes							
Date of Observation							
Context							
1. Co-workers/supervisors indicated that they:							
a. ate lunch with the employee							
b. saw the employee after work							
c. consider the employee to be a friend							
d. took breaks with the employee							
e. attended a company social event with the employee							

Workplace Acceptance Outcomes							
Date of Observation							
Context							
1. Co-workers/supervisors indicated that they:							
a. enjoyed working with the employee							
b. advocate for or support the employee							
c. consider the employee to be an aquaintance							
d. consider the employee to be a team player							
e. trained the employee on work tasks							
2. Co-workers/supervisors general interaction style with the employee during social interaction was:							
a. more positive							
b. the same							
c. more negative							

Feelings of Social Support Outcomes							
Date of Observation							
Context							
1. The employee indicated that he/she:							
a. is less lonely							
b. is happier							
c. is more satisfied with his/her friendship network							
d. is more satisfied with social interactions with co-workers							
e. has a higher self-esteem							
f. has more positive interactions with co-workers							
g. has more negative interactions with co-workers							
I. is more socially competent							

Tips for Employment Specialists to Fade

From Job Sites

Robert Cimera

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Tips for Employment Specialists to Fade from Job Sites[1]

Purpose

The presence of an employment specialist at a worksite may not only draw unwanted attention to the supported employee, but it also might create an unnatural barrier between the supported employee and their non-disabled co-workers.

For example, instead of talking directly to the supported employee, co-workers and supervisors might only talk to the employment specialist. Further, the employment specialist may be seen as the only person who is "qualified" to work with, and provide feedback to, the worker with a disability.

In order for workers with disabilities to have social interactions and to develop lasting friendships with their co-workers, employment specialists are encouraged to help facilitate these interactions as well as gradually fade, or diminish, their role at the worksite. This is often more difficult than it sounds. The next few pages provide a quick-reference list of some practical ways for employment specialists to fade from worksites while also facilitating opportunities for supported employees to be more socially included.

Prior to Placement

Effective employment specialists begin planning how to fade from the worksite prior to the time the supported employee even becomes employed in the community. There are a number of ways that this can be accomplished.

- Frequently, employers do not realize that employment specialists eventually are supposed to fade from worksites. To prevent possible misunderstandings, make sure both the employer and the supported employee are familiar with the employment specialist's role.

  For example, a meeting might be established with the employment specialist, supported employee, and employer/supervisor to discuss everybody's expectations regarding work quality and quantity, responsibilities for training, etc. Everybody should be reminded periodically that the employment specialist will be fading from the worksite.

- Opportunities for interactions with co-workers can often be built into an employee's job description. To do this, job carve tasks that provide contact with other co-workers. These interactions may not only aid the supported employee's social integration, but may also help prevent the supported employee from becoming dependent upon the employment specialist.

  For example, at an office setting, job carve opportunities for the supported employee to ask co-workers if they need items Xeroxed or delivered to other offices. This will create natural opportunities for social interactions and will allow the supported employee to perform an important work-related task. Further, when the supported employee is interacting with their co-workers, these co-workers can provide support (e.g., such as directions or checking work quality) that would otherwise be provided by the employment specialist.

- All too often, employment specialists begin training employees without thinking of how they are going to promote social integration or fade from the worksite. As a result, the

[1]The tips included in this section come from the literature on this topic. Some suggested readings are included at the end of this section, but this list is not considered complete. The reader is encouraged to read emerging literature in the area of natural supports.

employment specialist may be required to be present at the worksite longer than otherwise would be necessary. Planning systematic strategies from fading support prior to beginning training will help prevent this.

For example, vary level of prompts, physical distance, reinforcement, time spent with supported employees, etc. Try to reduce the intensity of help and support so that the worker learns to do the task using natural prompts or cues (e.g., papers in the Xerox bin means work needs to be Xeroxed) and is motivated by natural reinforcers (e.g., paychecks).

Training

Over the past few years, the role of the employment specialist has undergone a substantial change. In the past, employment specialists have been seen as the primary trainer of supported employees. For example, the employment specialist would enter a worksite, learn how to do the tasks, and then directly teach supported employees.

- Recently, more emphasis has been placed on the employment specialist as being a facilitator of training, both for the supported employee and with the employer, rather than a direct trainer. In this new role, the employment specialist facilitates training by utilizing the supports that can be developed, or are already existing, in the worksite.

  For example, employment specialists might help co-workers train the supported employee by developing task analyses, color coordinating materials, or determining the learning style of the supported employee.

- Many times after a supported employee is hired, the only person who provides training to the employee is the employment specialist. In order to promote fading, as well as social integration, co-workers could become involved with training.

  For example, have co-workers give feedback to the supported employee (e.g., "You are doing that well...", "Try doing that this way...", etc.) or have co-workers help develop the job and task analyses; they often know the best and quickest way to complete tasks.

- When a number of employees are working together to complete a common task, there are often opportunities to promote social integration as well as facilitate fading.

  For example, cues that are naturally occurring in the worksite, such as going to lunch when co-workers go to lunch, can be utilized. This will prevent the employee from needing to have to rely on the employment specialist for this cue.

- When a supported employee does not arrive, take breaks, or leave work at the same times as her/his co-workers, there is often little opportunity for co-workers to socially interact with, or provide work-related feedback to, the supported employee. By rearranging the supported employee's schedule, the employment specialist may increase opportunities for co-worker interaction and support.

  For example, have the supported employee scheduled to arrive, leave, and take breaks during the same time as other workers. If co-workers arrive at work early or stay late to socialize, encourage the supported employee to do so as well.

Fading and Providing Follow-Up Services

Fading from the job site does not mean that employment specialists are no longer concerned about the supported employee or the employer. In fact, in order for suported employees to maintain employment in the community, quality follow-up services are often necessary. Further, showing the employer that they are not left "high and dry" after the employment specialist leaves the worksite may make job development easier in the future.

- When an employment specialist comes into a worksite after having been gone for a while, employees with disabilities may feel insecure because they think they did something wrong, or that they are being "checked-up upon". To prevent this, employment specialists are encouraged to follow-up in ways other than visiting the worksite.

  For example, if appropriate for the work setting, call the supported employees supervisor to monitor performance rather than visiting in person. This may save the employment specialist valuable time as well as allow the supported employee to feel more independent.

- In busy worksites, supervisors often do not have the time to talk with employment specialists on the phone or in person. In these situations, other less time consuming and more flexible evaluation methods may be used.

  For example, have the work site supervisor provide feedback via questionnaires or monthly contact forms that can be completed at the supervisor's leisure. Such instruments should be brief and quick to fill-out, such as a check list or a rating scale. These questionnaires can also be used to obtain feedback from employers regarding their satisfaction with the supported employment program.

- When supported employees are employed in busy worksites, it is often difficult for employment specialists to talk with them at work. Further, the employee might prefer to meet outside of work so that he/she could talk privately with the employment specialist. There are a number of ways that an employment specialist could do this.

  For example, call the employee at home, rather than visiting at work. The employment specialist can also meet the employee outside of work to discuss how things are going at work. This way the employee and employment specialist can meet in a more social environment without fear of having co-workers overhearing personal comments.

- When problems arise, employment specialists are often tempted to correct the situation for the employer. By working with the employers to solve the problem, the employment specialist is helping the employer learn how to interact with supported employees and to manage unfamiliar situations.

  For example, provide in-service training to supervisors and co-workers or provide them with training materials, such as books or pamphlets. These could help the employer learn more about disability-related issues as well as to become a better manager of people in general.

Examples of Some Further Readings on This Topic

Butterworth, J., Hagner, D., Kiernan, W., & Schalock, R. (1996). Natural supports in the workplace and community: Defining an agenda for research and practice. Journal of the Association for persons with Severe Handicaps, 21, 103-113.

Hagner, D., Rogan, P., & Murphy, S. (1992). Facilitating natural supports in the workplace: Strategies for support consultants. Journal of Rehabilitation, 58(1), 29-34.

Hughes, C., Rusch, F. R., & Curl, R. (1990). Extending individual competence, developing natural support, and promoting social acceptance. In F. R. Rusch (Ed.), Supported employment: Models, methods, and issues (pp. 181-198). Sycamore, IL: Sycamore.

Nisbet, J. (Ed.). (1992). Natural supports in school, at work, and in the community for people with severe disabilities. Baltimore: Brookes.

Test, D. W., & Wood, W. M. (1996). Natural supports in the workplace: The jury is still out. Journal of the Association for Persons with Severe handicaps, 21, 155-173.

Enlisting Co-workers to Help Plan Interventions

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ENLISTING CO-WORKERS TO HELP PLAN INTERVENTIONS

PURPOSE

The purpose of these tips is to help employment specialists work with co-workers to aid in the facilitation of social interactions for supported employees. The purpose of increasing social interactions is to expand the social circle of the supported employee and to help this employee feel more included in the social setting at work.

WAYS TO WORK WITH CO-WORKERS

There are two ways of working with co-workers to get their input concerning social interventions. The employment specialist can work with co-workers informally and individually. The employment specialist can also work with co-workers in a more formal way, like having small group meetings. The method that you choose will depend upon what is appropriate for the supported employee and the work setting in which he or she works.

JOB DEVELOPMENT

Another important point to remember is that the process of assessing the work culture and learning about the social make-up of the work place should begin during job development. It is important to make sure that the work *and* the social characteristics of the job match the skills, abilities, and personality of the worker that you are assisting. The job developer should find out about the social culture when developing a worksite.

STRATEGIES

The next section provides information about two types of strategies: (a) guidelines are presented for working with individual co-workers and (b) guidelines are presented for working with a group of co-workers. Guidelines are also presented on ways to be a more effective facilitator of information during meetings.

Guidelines for Enlisting Individual Co-workers

1. Discuss social integration with the supported employee. Find out how he or she feels about you approaching co-workers on his or her behalf. You may want to explain that you think this might help this worker get to know some more people at work and may create some new friendships.

2. Determine which co-workers might be good at helping you to think of new ways to facilitate social integration and who might be willing to help you. The following criteria might help:

    - Determine the best liked or most popular co-workers
    - Determine who interacts with the supported employee the most
    - Determine who works with the supported employee the most
    - Determine who has the same interests or hobbies as the supported employee
    - Ask the employer to nominate some co-workers that she thinks would be helpful and interested
    - Determine which co-workers have had experiences with people with disabilities

3. Approach co-workers that you think will be helpful and interested in facilitating social interactions and explain to them what you are trying to do. You might say the following:

   "The supported employee has expressed to me that he/she would like to have more friends at work and wants me to help. As the employment specialist, I think it would really help to get input from some of the employee's co-workers, about ways to help him/her feel more included at work."

4. If the co-worker agrees to help, these are some questions you may want to ask:

   - What do you think we can do to help this employee socialize more at work?
   - Are there places he/she should be at certain times to facilitate interaction?
   - Are there things he/she could bring up in conversation that might start conversation with others?
   - Can you think of some other co-workers who would be willing to start more conversations with employee?

5. Are there any skills in which the supported employee needs more support to help him/her better interact with others? After you get some ideas and put them into action, informally assess the satisfaction of the supported employee and his/her co-workers by observation and by asking how things are going in terms of him/her being more included at work.

GUIDELINES FOR ENLISTING A <u>GROUP</u> OF CO-WORKERS:

If you feel that it would be more helpful or appropriate to work with a few co-workers in a small group, here are some suggestions for facilitating these small groups:

1. Determine which co-workers might be appropriate to be involved using steps #1 - #3 from "Guidelines for Enlisting Individual Co-workers." (You may want to limit your groups to 2 or 3 co-workers).

2. Determine whether the supported employee wants/needs to attend the meeting. (We suggest that the supported employee should play an integral part in these meetings.)

3. Decide where and when to hold meetings: in the breakroom, cafeteria, local coffee shop; during break, meals, before or after work, etc.

4. For the first meeting in particular, decide ahead of time what you plan to discuss. Perhaps you want to give an explanation of why you all are there, some examples of interventions, and a brief report on your assessment of the work culture. Then you should get ideas from the co-workers about what they think can be done to increase social interactions and make the supported employee feel more included. You might want to meet weekly or every other week.

5. Here are some ideas for the agenda for the rest of your meetings:
   - Talk about the success of the previous week's interventions
   - Ask for other ideas to socially include the supported employee
   - Modify schedule of the supported employee, if needed
   - Discuss skill areas that need support from you (the employment specialist)
   - Informally assess satisfaction of everyone involved

6. Remember to keep meetings short (25-30 minutes for the first meeting, 15-20 minutes for subsequent meetings). This way co-workers won't feel burdened by meetings.

7. Set the tone for the meeting. Make sure you keep the goal of the meetings in mind. You're not there to discuss disability, just to think of good ways to promote social interactions and integration. Remember, this information and these ideas could potentially be used to help *all* co-workers to create a more positive social environment for everyone.

GUIDELINES TO HELP YOU BECOME AN EFFECTIVE FACILITATOR

MANAGEMENT

- Start and end meetings on time
- Make sure everyone gets to talk, that everyone does talk, and that nobody talks too much
- Don't end a meeting without setting a time for the next meeting—Do this BEFORE the meeting is expected to end
- Provide a written summary of the intervention ideas for the next work day for all members of the meeting (if appropriate)

STYLE

- Encourage humor
- Use frequent summary statements, especially when making a transition between agenda events
- Help clarify people's thoughts
- Try to use the language of the worksite (of course, you need understand the language of the worksite!)

INTERVENTIONS

- Try to achieve some sort of balance in interventions—use individual, co-worker, and contextual interventions—be aware that there may be a lot of individual interventions suggested
- When barriers to certain interventions arise attempt to "brainstorm" ideas to overcome the barriers
- When an intervention is suggested do the following:
  -Make sure you can "see" and understand the intervention
  -Make sure there is some way to determine whether the intervention happens or not
  -Make sure there is a way to assess the effects of the intervention